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Vendor-backed Lobbying Groups Cozy Up to DHS

Organizations' self-serving agendas raise concerns that security burden will fall to users

BY DAN VERTON WASHINGTON

When the Department of Homeland Security convenes its National Cyber Security Summit in California on Wednesday, its stated aim will be to improve cooperation with the private sector. But the question is whether it's cooperating too closely with IT vendor special interests.

The DHS is hosting the event in collaboration with IT vendor organizations whose lobbying activities are coming under increased scrutiny for pushing an agenda that would place the burden of security on the government and users rather than on the vendors that sell the products.

Co-sponsoring the event, to be held in Santa Clara, are the Information Technology AssoMORE ONLINE

A guide to IT vendor organizations: **QuickLink 43140**

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ciation of America, the Business Software Alliance, the TechNet alliance of CEOs and the U.S. Chamber of Commerce. A Computerworld review of the public policy statements of these groups found nothing to indicate that they have ever taken a position that calls on IT vendors to improve the security and quality of their products.

Moreover, the vendor groups partnering with the

DHS this week appear to share an agenda aimed at frustrating legislation that would require companies to conduct third-party security benchmarks and report the results each year in their annual reports [Quick-Link 42668]. All of those organizations played a role in blocking a bill with such goals last month, according to officials involved in drafting the legislation who spoke on condition of anonymity.

While many industry executives spoke on the record about the role of vendor groups in shaping public policy, others

Lobbying, page 16

Corporate Users Follow Mono Project

Running .Net apps on Linux has appeal, but Novell faces obstacles

BY CAROL SLIWA

Plenty of corporate developers watched with great interest when Novell Inc. unveiled a road map for the opensource Mono project that it acquired with Ximian Inc.

That's because Mono could give them a chance to run Microsoft Corp.'s .Net-based applications on Linux or Unix. Launched in 2001, the Mono project is an open-source version of Microsoft's .Net Framework, which includes a runtime for the Common Language Infrastructure, a C#

Mono Project, page 61

Look North, Workers Advised

a Canadian

official says.

IT jobs are available in Canada, where pay is lower but so are costs

BY PATRICK THIBODEAU

Unemployed U.S. IT workers may be able to find work in Canada, where near-shore outsourcers take advantage of their country's lower

The average IT salary paid by Keane Inc. to employees at its application development center in Halifax, Nova Scotia, is around \$60,000 Canadian, or roughly \$45,000 U.S., based on recent exchange rates.

While that pay rate might seem low to U.S. IT workers, it's "considerably higher" than the average salary in the Halifax area, said Stephen Lund, president and CEO of Nova Scotia Business Inc., a govern-

ment-backed economic development agency.
"You can live in Nova Scotia with a lot less money than you can live in a lot of other places," he said.

Canada Jobs, page 12



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CIO on Board

In the Management section: Being asked to serve on a board of directors can mean you've finally arrived. But it also carries risks and liabilities. We identify 10 things a CIO should know before joining a board. Page 48



Killer Clauses

Also in the Management section: Attorneys identify software contract clauses that can confuse users and cost them time, resources and lots of money. Page 43

- 6 Indiana's jobs agency cancels a \$15.2 million IT services contract with a company that planned to import workers from India.
- 6 Dell brings PC support back to the U.S. The company is rerouting tech-support calls about its corporate PCs from India in response to customer complaints.
- Airbus will use Web-based software to procure all goods and services for a new military transport plane.
- The Army plans to test two kinds of RFID tags on food shipments.
- Oracle says it will launch a proxy fight as part of its ongoing bid to buy PeopleSoft.
- 10 'Tis the season for online security. Internet merchants should have systems in place to thwart online fraudsters and identity thieves.
- 10 Users are approaching Web services with caution amid security and performance concerns.
- 14 Sarbanes-Oxley IT costs can be hard to pin down, managers find.
- 14 IT spending as a whole is expected to rise next year, but not in all industries.
- 16 EMC adds a third-party database archiving tool to fill a gap in its information lifecycle management offering.

TECHNOLOGY



- 34 QuickStudy: WiMax. The Worldwide Interoperability for Microwave Access standard is the next step on the road to a wireless world, extending broadband wireless access to new locations and over longer distances.
- 38 Security Manager's Journal: **Bad Policy Makes for Weak** Passwords. Vince Tuesday finds that murky policies and sloppy security practices have left end-user accounts vulnerable to attacks at his company.

MANAGEMENT

- 46 Q&A: Thinking Like a Manager. Harvard Business Review author Jonathan Gosling tells why good managers are crucial to a company's success and offers five mind-sets that can help you think like a manager.
- 52 Newsmaker: CIO Mark Quinlan talks about the banking industry and his new role at Charter One Financial.



OPINIONS

- On the Mark: Mark Hall learns about an antispam project that exterminates 99% of the misdirected missives. And he might shop for a Linux DVD player for the holidays.
- 20 Maryfran Johnson tests an array of gadget gift ideas on her Supergeek at home.
- 20 Pimm Fox doubts that Novell can make its acquisition of SUSE work. Users, however, should make out nicely.
- 21 Dan Gillmor worries that the IT industry's fortunes haven't improved, despite good news from industry heavyweights.
- 41 Paul A. Strassmann warns that security threats are the dark side of self-adapting software's potential.
- 52 Paul Glen reminds you that it's time for the dreaded annual planning exercise. But he offers a new way of doing it that focuses on organizational teamwork for better results.
- 62 Frankly Speaking: Frank Hayes suggests that you recruit the "gadget guys" in your organization to help you plug security holes opened by the many cool devices end users keep bringing in.

DEPARTMENTS/RESOURCE	S
At Deadline Briefs	6
News Briefs	. 8, 12
Letters	21
IT Careers	56
Company Index	60
How to Contact CW	60
Shark Tank	62

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QuickPoll Results Do you think Microsoft's offer of a reward will help authorities 44.7% track down 55.3% virus authors? Take this week's QuickPoll at www.computerworld.com.

Fighting Globalization

DEVELOPMENT: How can computer pros fight the outsourcing threat? Master business processes and contribute to value chains, advises Eugene Gilerson, a software architect and project manager at TD Waterhouse. QuickLink 43128

Honeypots Play Key Security Role SECURITY: This intrusion-detection technique can be an important factor in defending your enterprise, says Symantec's John

Managing Access Control Lists

Harrison. QuickLink 42910

SECURITY: Access control lists can be difficult to manage, but they can be an effective tool for helping to secure your network, says Eric Vasbinder, a senior product manager at Rendition Networks. He discusses the problems with ACLs and how to manage them successfully. QuickLink 42949

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Scripting Holes Reported in IE

Microsoft Corp. said it's investigating possible security flaws in the Active Scripting feature that's built into its Internet Explorer 6.0 Web browser. Security researchers reported the vulnerabilities and advised users to disable the feature to prevent attackers from taking remote control of their PCs. Microsoft said it had not been informed of any attacks.

Integration Team Leader Quits HP

Jeff Clarke, one of the two executives who led the integration team after Hewlett-Packard Co. acquired Compaq Computer Corp., resigned from his job as executive vice president of global operations at HP. Clarke was Compaq's chief financial officer prior to the May 2002 merger. HP said his resignation "was mutually agreed to and was appropriate." Clarke couldn't be reached for comment.

NetApp Upgrades Secondary Storage

Network Appliance Inc. tomorrow plans to unveil an upgrade of its NearStore secondary-storage disk array as part of a wider announcement involving several products and partnership deals. Sunnyvale, Calif.-based NetApp said the Near-Store R200, which includes an enhanced version of its SnapVault data management software, will be released this month.

CRM Woes Persist At AT&T Wireless

AT&T Wireless Services Inc. said it's still struggling with CRM system glitches that have been affecting the Redmond, Wash.based company since Nov. 1. An AT&T Wireless spokesman would not predict when the problems will be fixed. They are preventing the company from signing up new users of its GSM/GPRS service [QuickLink 42831].

Employment Agency Scripting Holes Reported in JF Scripting Holes Scripting Holes

Governor orders cancellation of system redesign contract amid controversy

BY THOMAS HOFFMAN

T THE BEHEST of Indiana's governor, a state agency that helps unemployed residents find jobs has canceled a \$15.2 million IT services contract with a company that planned to import up to 65 workers from India.

Gov. Joe Kernan on Nov. 20 ordered the Indiana Department of Workforce Development (DWD) to end its deal with Tata America International Corp. as part of a new plan to overhaul the state's procurement processes. The proposed changes are aimed at ensuring that Indiana-based companies get more chances to win contracts.

"After having a chance to discuss our vision of how the state should do business and how we can provide better opportunities to Indiana companies and workers, we concluded that this contract did not fit in that framework," Kernan said in a statement.

Legislators Panned Deal

New York-based Tata America, which is also known as TCS America, was supposed to help the DWD redesign a system used to process unemployment claims and taxes. The DWD awarded the contract to TCS last summer, and work began Nov. 4. But the deal angered some state legislators, who complained that the planned use of Indian programmers went against the very nature of the DWD's charter [QuickLink 42838].

Patrick Murphy, a deputy commissioner at the DWD. last week said TCS will continue work on the contract for 30 days beyond the cancellation date, partly to train IT staffers at the agency on developing Java applications.

The DWD will pay the company for services rendered but won't be obligated to pay a termination fee, Murphy said.

It's unclear when the DWD will rebid the contract. Murphy said the governor's office will review the agency's procurement procedures "to see if we can give Indiana firms more opportunities" to bid.

TCS beat out two other finalists for the DWD contract - Accenture Ltd. and Deloitte Consulting. No Indiana-based businesses submitted bids, although Murphy said some

of 84 companies that received invitations to attend a prebid conference in October 2002.

A spokesman for TCS, a subsidiary of Tata Consultancy Services in Bangalore, India, declined to comment in detail about the cancellation. "This is a decision made by the state of Indiana, and we will abide by it," he said.

TCS's bid was \$8.1 million lower than the next closest offer, according to the DWD. The agency plans to replace its current claims and tax processing system, which runs on a Unisys Corp. mainframe, with a client/server application written in Java.

After having a chance to discuss our vision of how the state should do business . . . we concluded that this contract did not fit in that framework.

INDIANA GOV. JOE KERNAN

Jeff Drozda, a Republican state senator who criticized the contract with TCS, is sponsoring legislation that would ban state contractors from using foreign workers on IT projects and other initiatives. Drozda said he expects the state Senate's Economic Development and Technology Committee to hold a hearing on the bill today. A 43167

User Complaints Push Dell To Return PC Support to U.S.

Customers say tech help in India not good enough

BY BOB BREWIN

Dell Inc. last week said it has stopped routing most of the technical support calls from U.S.-based users of its corporate PCs to a facility in India, after some customers complained about the quality of the help they received.

Support operations related to Dell's Optiplex line of desktop PCs and its Latitude notebooks are being moved back to facilities in Texas, Idaho and Tennessee, said company spokesman Jon Weisblatt.

"Corporate customers were telling us they didn't like the level of support they were getting, and in the normal course of business, we made some adjustments," Weisblatt said. .

Ned May, an analyst at market research firm IDC, said he had also heard criticisms from corporate IT managers about the support they were getting

from Dell's call center in Bangalore, India. May called the shift of support back to the U.S. "an aggressive move" that should earn Dell some goodwill from users.

Dell's support flip-flop is also a victory for U.S.-based IT workers, said Marcus Courtney, president of the Seattle-based Washington Alliance of Technology Workers. The problems encountered by Dell should show other technology vendors that sometimes "cheaper is not better," Courtney added.

But it may be a short-lived victory. Barry French, another Dell spokesman, said a portion of the calls from U.S. PC users will still go to India, where support has been handled since mid-2001. He also indicated that Dell may shift all of the support back offshore at some point. "We are increasing the number of people we have providing support in India," he said. "Dell has a number of call centers around the world, and we will continue to optimize those to provide the best customer experience."

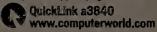
IDC's May said he sees offshore sourcing, in which IT jobs such as technical support are moved from the U.S. to less expensive countries, as an inevitable trend. "The economics are too compelling," he said.

Dell's decision on PC support was disclosed less than a week after Michael Dell, its chairman and CEO, ballyhooed the establishment of a "state-of-the-art" Enterprise Command Center support facility in Round Rock, Texas, during a Nov. 18 press conference at Comdex/Fall 2003.

The new facility will provide support to users of Dell's corporate servers and storage devices. Gary Cotshott, vice president and general manager of Dell's services unit, said the company set up the center because the expectations of users "continue to go up as we penetrate the enterprise market." • 43172

MORE ON THIS TOPIC

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Aircraft Maker Turns to Sourcing Software for New Military Planes

Airbus says technology will manage procurement of millions of components

BY MATT HAMBLEN

Continuing a staged rollout that began 19 months ago, Airbus SAS in the coming weeks will expand its use of Webbased software to support all the steps involved in sourcing goods and services for a new military transport plane.

The Toulouse, France-based aircraft manufacturer will use its Sup@irWorld online sourcing system to drive procurement activities ranging from identifying potential suppliers for the A400m program to awarding contracts, said Frederic Geoffrion, project manager for the software. "That's a clear message to suppliers that Sup@irWorld is not a toy," Geoffrion said last month.

Airbus last May signed a contract to make 180 of the A400m planes, at an average selling price of \$100 million each, for use by seven European nations. Geoffrion said suppliers will bid for contracts on millions of parts and systems needed by Airbus, which is due to have the first A400m ready to fly in 2008.

Custom Apps

The Sup@irWorld system is based on a customized version of Ariba Inc.'s sourcing applications, said Geoffrion. Limited use of the system began in May 2002, and an updated version was added last June. Airbus last month announced plans to use the software to support sourcing processes throughout its operations. The A400m project is the first in

Correction

In the Comdex story in last week's issue, a highlighted quote on page 49 was mistakenly attributed. The quote should have been attributed to Malachy Smith of DNM Technology Ltd. which sourcing will be fully automated, Geoffrion said.

He noted that more than 1,000 buyers at Airbus have used the technology on various programs and that bids from 1,500-plus suppliers have been processed through the system, Sup@irWorld is being used to replace a paper-based approach and has already produced cost savings, Geoffrion said. He wouldn't divulge any specific figures but said the system lets Airbus solicit bids from many more suppliers than it could before, generating increased competition and lower prices.

That's important, because

Airbus "is confronted with a difficult market, and we have to fight everywhere to take the costs down," Geoffrion said.

Andy Kyte, a London-based analyst at Gartner Inc., said Airbus "is further down the track" than most manufacturers in developing Web-based sourcing systems. He estimated that the company has spent more than \$2 million to buy and customize Ariba's software. But successful rollouts of sourcing tools can produce a return on investment in less than a year, he said.

Kyte, who has been following the Airbus implementation for months, said Sup@irWorld has been used to automate some of the sourcing operations for the A380 double-decker aircraft, a 530-seat



plane that's in the third year of an eight-year development program with an expected total cost of \$12 billion.

Kyte added that roughly 20% of the top 2,000 companies worldwide already use Web-based applications to manage some of their sourcing activities, and he predicted that the figure will grow to about 50% within two years.

Sunnyvale, Calif.-based Ariba competes with Frictionless Commerce Inc. in Cambridge, Mass., and FreeMarkets Inc. in Pittsburgh, plus a variety of ERP and supply chain software vendors that sell sourcing technology as part of their products. But Kyte said Ariba offers a broader set of tools than its rivals and has a strong presence in Europe. • 43137

Army to Test Passive RFID Tags on Food Shipments

Trial will include temperature sensor devices

BY BOB BREWIN

The U.S. Army will begin the Defense Department's first test of passive radio frequency identification (RFID) tags in February, using the same kinds of technology and electronic product code (EPC) standards that Wal-Mart Stores Inc. is requiring its top 100 suppliers to adopt.

But the Army is adding a twist to its pilot: the use of additional RFID tags equipped with battery-powered sensors that can monitor temperatures in the areas where goods are shipped and stored. Those tags are designed to ensure that food sent to troops in the field gets used before its shelf life is exceeded.

Chief Warrant Officer Stephen Moody, a coordinator of the RFID program at the Army Soldier System Center in Natick, Mass., said last week that the facility has completed final tests of the components that will be used in the RFID "proof of concept" demonstration. That includes passive, write-once tags that operate at 915 MHz and the sensor-equipped devices, which function at 2.4 GHz.

The Army is buying both kinds of tags from Alien Technology Corp. in Morgan Hill, Calif. Paul Drzaic, vice president of advanced development at Alien Technology, estimated that the Army will use about 1,000 tags and 12 RFID readers in the pilot test, which will involve the movements of Meals Ready to Eat (MRE) and canned rations in a simulated battlefield supply depot set up in San Joaquin, Calif.

According to Drzaic, the 915-MHz tags are similar to the ones that Wal-Mart intends to use within its supply

chain when the retailer's mandate to put RFID tags on shipping pallets and cases goes into effect in January 2005. The Pentagon issued a similar edict to its suppliers in October.

Moody said the data stored on the tags, including a unique product identifier, the date of manufacture and the name of the food supplier, will conform to EPC specifications being developed by Bostonbased EPCglobal Inc. Wal-Mart also plans to use them.

'Semipassive' Sensors

But Moody said extreme heat such as that experienced in Iraq can rapidly reduce the shelf life of MREs, dropping it from a normal average of 36 months to just one month at a temperature of 102 F. Because of that, the Army has to go beyond standard-issue passive RFID tags, he said.

In the test, one of the socalled semipassive devices with temperature sensors will be placed on each pallet of goods. In comparison, regular passive tags will be attached to each box of food on a pallet. The Army is an early adopter of the semipassive technology, Drzaic said, but he added that such tags could have widespread commercial uses in "cold chain" management of perishable goods.

One potential drawback is the fact that the devices cost \$10 to \$20 each, although Drzaic said volume production could drive the price down to \$1 or so.

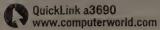
As part of the Army's test, communications from the RFID readers will be sent over an 802.11a wireless LAN that operates in the 5-GHz band to a stand-alone Dell Inc. computer running middleware developed by OATSystems Inc. in Watertown, Mass. Moody said OATSystems is also the systems integrator for the RFID pilot project. • 43173

MORE NEWS

H. The Plan Pentagon officials will spell out their RFID requirements to suppliers at a meeting this week.

QuickLink 43193

Fig. RFID cov : Go to our enline RFID Technology page to read additional stories:



BRIEFS

Microsoft Probes Exchange for Flaw

Microsoft Corp. is investigating a potential security flaw in Exchange Server 2003, which would be the first found in the software since it was launched in October. Microsoft said an initial probe indicated that a problem with the log-in function for Exchange's Outlook Web Access component occurs when users disable the software's Kerberos authentication.

Sprint Sets Plan to Cut 2,000 Jobs

Sprint Corp. said it plans to lay off about 2,000 workers by year's end, including some of its IT staffers. The cuts will affect Sprint's corporate and consumer business units. They're being made in addition to workforce reductions that will accompany application development outsourcing deals Sprint announced in September with IBM Global Services and Electronic Data Systems Corp.

HP Adds StorageFor Small Users

Hewlett-Packard Co. announced a consolidated line of disk storage devices aimed at small and midsize users in a bid to make its product offerings for such customers less confusing. HP also added a series of packaged systems that combine its Storage-Works Modular Smart Array devices with its ProLiant servers. Prices start at \$3,200.

Linux Lab Takes Sides Against SCO

Open Source Development Labs Inc., which is funded by a group of Linux vendors, published a paper opposing The SCO Group Inc.'s legal attacks against Linux. The paper was written by Columbia University professor Eben Moglen and presented at an October meeting of the organization's customer advisory council.

MARK HALL • ON THE MARK

Spam Exterminator Project Kills 99%...

... of incoming nuisance e-mails, and that's before you begin applying basic spam-filtering techniques such as blacklists or subject-line analysis, brags Jeff Brainard, product marketing director at Mirapoint Inc. in Sunnyvale, Calif. The messaging appliance company's **upcoming spam fighter, code-named Exterminator,** will likely hit the market in Ql 2004. Brainard is mum on the details, but he does reveal that the high

level of success the product is having during its testing phase is a result of content-analysis techniques. And false positives are kept to a bare minimum, he says. Mirapoint is also experimenting with what can only be called a **network-effect** method to manage both spam and viruses.

That is, if you're among the few thousand users of Mirapoint messaging appliances, you'll be able to opt into a system that links you with other Mirapoint users so that spam or viruses that get caught in

your traps can be identified to others in the chain and automatically get filtered out. As this feature links more users, fewer spam and virus-laden messages will get passed along. Who'd have ever thought spam would bring us all together? Kumbaya to you, too, dude. ■ OuterBay Technologies Inc. in Campbell, Calif., struck a nice pot of gold when it inked a deal with EMC Corp. (see story, page 16) for its information life-cycle management software. Sources also reveal that modules to migrate Siebel and SAP applications
[QuickLink 38966] will be ready in the
first quarter. After that, OuterBay plans
to release tools to manage the archiving of
Outlook and Notes e-mail in the first half of
2004. If you've got remote sites to monitor but don't have a virtual private network — or even if you do — consider
this week's release of SilverBack 4.0 from
SilverBack Technologies Inc. in Billerica,
Mass. The upgrade adds Secure Sockets
Layer to the company's remote VPN

monitoring capabilities for secure interconnections between remote sites and your data center. When you load software called Silver-Streak at your remote sites, the offering uses either a VPN or SSL to report on the status of network components such as uninterruptible power supplies, routers and desktops to a central management console. The upgrade adds alert suppression to the tool so that if a router fails, network managers receive only one alert instead of one for

network through the downed router. Pricing depends on the number of devices monitored. Bandwidth grows and grows, and that can mean only one thing: a bigger fire hose of data aimed at your server's CPUs. A 100Mbit/sec. Ethernet connection shoots 148,000 packets per second at your server. When you upgrade to 10Gbit/sec. Ethernet, that jumps to 14,800,000 packets. Although faster microprocessors and more of them in your server will help, a more efficient approach might be to add a protocol accelerator to your server. Maybe one from Astute Networks Inc. in San Diego. The PA1000 Super HBA is designed to offload unsecured TCP and iSCSI protocol processing, so servers as well as disk arrays in a storage-area network or networkattached storage can benefit from the protocol acceleration. The PA1000 Super HBA has four standard RJ-45 network ports, and it plugs into a single PCI-X slot. If you need to process packets securely, the SA1000 can accelerate SSL and IPsec along with the other protocols via a chip from Astute's partner Cavium Networks Inc. in Santa Clara, Calif. Volume manufacturing won't start until next quarter, and you'll initially need to order the accelerators through your server or array supplier. Tying asset management with work-order operations seems pretty smart. That's what the folks at Corner-Post Software LLC in Duffield, Va., have done. Their new TotalTrack ASP-style service goes live this week. Access to TotalTrack is role-based, so you can let end users enter information about their assets or work-order needs, or you can route the requests through systems administrators. Road warriors will be able to get or give data with handheld devices and tablet PCs beginning in Q1. Annual service-provider fees begin at \$600 for education clients. • 43115

every device unable to connect to the

Holiday Penguin

Diehard Linux and opensource fans can extend their support for the technologies from inside the data center to under the Christmas tree this month when the Linuxand Helix-based Media-Ready 4000 hits store shelves. The combination DVD player, Web-access and e-mail unit from Video Without Boundaries Inc. in Fort Lauderdale, Fla., should have a retail price of \$399.

Oracle Plans Proxy Fight With PeopleSoft

BY MARC L. SONGINI

Executives at Oracle Corp. last week reaffirmed their intention to pursue the company's hostile bid to buy People-Soft Inc. and said Oracle will propose its own slate of proacquisition directors as an alternative to PeopleSoft's board. Oracle has been the unwanted suitor of PeopleSoft since June.

PeopleSoft hasn't set a date for its 2004 shareholder meeting, but Oracle intends to nominate a list of replacement directors next month. Safra Catz, an executive vice president at Oracle, said the company will submit a slate of candidates even if U.S. and European regulators have yet to approve the takeover.

Catz and two other executives tried to dispel rumors that the software vendor would throw in the towel because of PeopleSoft's poisonpill provisions and U.S. and European regulators' decisions to extend their probes.

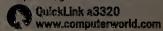
"We remain committed," said Chuck Phillips, another vice president, although he added that Oracle won't pay an unreasonable price for PeopleSoft and that it's investigating other potential mergers.

A PeopleSoft spokeswoman declined to comment on Oracle's plan to seek control of the Pleasanton, Calif.-based company's board. But she said that PeopleSoft officials "are not apprehensive" about a proxy fight with Oracle.

Andrew Ball, a London-based analyst at Frost & Sullivan Inc., said the number of PeopleSoft users looking forward to a merger with Oracle can "be counted with the fingers on one hand. Throw in the regulatory delays, and Oracle's ability to convince itself that this deal still makes sense is one of the wonders of the modern world." 43134

TAKEOVER SAGA

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Oliver Rist, Senior Contributing Editor Brian Chee, Industry Expert InfoWorld 9/01/03

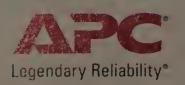
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Fears of Online Fraud Rise As Shopping Season Begins

Merchants expect growth in cybercrime to keep pace with increase in Web sales

BY JAIKUMAR VIJAYAN

HE HOLIDAY shopping season promises to be a busy one, not just for Internet retailers, but for opportunistic online fraudsters and identity thieves as well.

As a result, Internet merchants — especially the smaller ones — will need to make sure they have adequate fraud- and theft-detection processes in place before the rush begins, industry experts warned.

"I think the problem is going to be real bad," said Tom Mahoney, founder of Merchant 911, a 1,600-member online forum in which merchants can share fraud-prevention information.

"All the projections we're seeing are for a significant increase in online sales. Because of this rush, there will be less time for smaller merchants that do some or all of their own fraud screening to do it well," Mahoney said. They should expect an increase in the number of successful fraudulent transactions and lost dollars as a result, he predicted.

Using the Right Tools

However, the growing availability of fraud-detection tools and services should help, said Julie Fergerson, co-chairman of the Merchant Risk Council, a fraud-fighting group in New York.

For instance, merchants can use so-called geolocational tools that scan IP addresses to identify orders that are being placed from outside the country, Fergerson said.

Similarly, new card-verification methods that are available from all of the major credit card companies allow merchants to ensure that the person entering the card number actually has the card in his possession. And fraud-detection services, which cost between 5 cents and \$1 per transaction, let merchants automatically flag suspicious transactions, Fergerson noted.

Anaconda Sports Inc., a Kingston, N.Y.-based online sporting goods retailer, has signed up for one such service from VeriSign Inc. in Mountain View, Calif. For 8 cents per transaction, verisign inters Anaconda's transactions, looking for stolen credit cards, verifying addresses and identifying purchases attempted from outside the country. The service has helped the company reduce bad debt and chargebacks because of fraudulent transactions, said Robert Meyer, director of infrastructure operations at Anaconda.

VeriSign, which provides payment-processing services for more than 97,000 North American businesses and processed nearly \$7 billion in online retail sales in the third quarter, is seeing a substantial increase in transaction volumes going into the shopping season. The number of transactions on its networks jumped from 61 million in the third quarter of 2002 to more than 91 million in the same quarter this year, and that figure is continuing to rise entering December.

Along with that growth has come a sharp spike in fraudulent transactions, said Trevor Healy, a director with Veri-Sign's fraud-prevention services. "While e-commerce appears to be alive and kicking, the growth rate in the levels of fraud appear to be growing at the same rate as well," Healy said. "What we are seeing is about 3% to 4% of a retailer's bottom line being consumed by fraud." • 43107

Tips for Merchants

- Have a plan to flag and handle orders that look suspicious: Orders involving high dollar amounts with a large number of relatively inexpensive products like DVDs need to be reviewed.
- Maintain a "negative" file: Keep track of those who have committed fraud against you. Have a system in place to compare each order with the shipping, e-mail and IP addresses in the negative file.
- Implement CVVC, CID, CVV2 card-verification schemes:
 Asking the customer to enter the three- or four-digit code on every credit card helps ensure that he has the card in his possession.
- Send e-mail receipt: Monitor e-mails that bounce back.

Users Proceed Cautiously On Web Services Track

Concerns remain about security, interoperability, performance

BY CAROL SLIWA BALTIMORE

IBM, Microsoft Corp. and other vendors that have been pounding the Web services drum for more than two years claim that more and more of their customers are building Web services. And to a degree, they're right.

But the spotty levels of adoption by corporate users was plainly evident in a random poll of 15 IT professionals at Gartner Inc.'s recent Application Integration and Web Services Summit here.

Some had taken a serviceoriented development approach that yielded a growing collection of Web services. But more said that although they think it's the right direction, they're just getting started, with few or even just one Web service in production. Others expressed skepticism about the prospects of Web services to address their complex integration woes.

"I don't think the infrastructure is in place to enable the throughput," said Piet Potgieter, an application architect at Old Mutual PLC, a financial services and insurance firm in Cape Town.

Potgieter, who works with mainframes, said Web services may have their place where response time doesn't matter. But in his opinion, latency problems will need to be resolved before Web services can handle high throughput

Web Services Gotchas

- Legacy interfaces must be mapped to generic interfaces.
- Preparation for integration must include data cleansing and interface preparation.
- Big files move slowly.
- Services must be documented in detail for future use.

SOURCE: DAVID SMITH, GARTNER INC

across a network.

Jonathan Pettus, a manager in the integration project office at NASA's Marshall Space Flight Center in Huntsville, Ala., said he can foresee Web services being useful for information exchange with the public. For instance, NASA next spring plans to advertise job openings through Monster.com and use a SOAP adapter from SeeBeyond Technology Corp. to enable résumés to get into its backend systems through a Web service, Pettus said.

But he said NASA has no plans for a full conversion to Web services to get internal applications to interoperate. "How long is it going to take us to get the thousands of applications that we have in NASA Web-serviceable?" Pettus said. "That's not going to happen."

Gartner analyst Roy Schulte estimated that 95% of the Web services being done today are internal between single-vendor systems on the client and server sides. "You don't mix vendor SOAP stacks in 95% of the cases because they don't work together if you're trying to do anything fancy," he said.

Schulte added that there won't be "pluggable interoperability with no customization,

except for the simplest of applications," for at least five years, since vendor implementations will continue to vary.

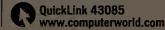
He also predicted that Web services between heterogeneous systems over HTTP in high-throughput, low-latency scenarios won't be possible in the foreseeable future. But simple SOAP-based request-and-reply messages over HTTP work today, and reliable messaging and security will improve, he added.

The Web Services Interoperability Organization, led by IBM and Microsoft, has been working to resolve the thornier issues. In the meantime, companies committed to Web services are working around the limitations.

Gary Lien, a system architect at Life Time Fitness Inc. in Eden Prairie, Minn., said his company's external Web services are of a single-partner nature, so it is able to deal with security. Life Time gets around the issue of reliable messaging by doing only synchronous communication, he added. • 43133

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Corel Searching For a New CEO

Corel Corp. said it's looking for a new CEO to replace Derek Burney, who was named chairman of the software vendor. Amish Mehta, an executive from the venture capital firm that bought Ottawa-based Corel in August, is taking over as interim CEO while the search proceeds. Corel said Burney will help shape its product strategy and work to identify new business opportunities.

Linux Group Hit by Server Attacks

The group that organizes the open-source Debian Linux development project said four of its servers were compromised in a hacking incident. The intrusions prompted the group to suspend e-mail service through the Debian.org domain and lock user accounts on its other systems. But it said an update of the Debian GNU/Linux operating system released on Nov. 21 wasn't affected.

SUSE Upgrades Versions of Linux

SUSE Linux AG in Nuremburg. Germany, released a free upgrade of its Linux distribution for servers, adding an updated operating system kernel and other features. SUSE, which last month agreed to be acquired by Novell Inc., also made available a download of its SUSE Linux 9.0 desktop operating system.

Pivotal in Talks With Hong Kong Vendor

Pivotal Corp., a CRM software vendor in Vancouver, British Columbia, today plans to announce whether it has agreed to a buyout by Hang Kong-based Chinadotcom Corp. To give itself more time to negotiate with Chinadotcom, Pivotal postponed a shareholders' sore that had been scheduled for Nov. 21 on a proposal to combine the company with Talisma Corp. in his klaud, Wash.

Continued from page 1

Canada Jobs

And Keane is hiring. The company last month launched a national recruiting drive in Canada for its Halifax center, now at a head count of 300 and growing 30% annually, a Keane spokesman said.

Although Boston-based Keane doesn't actively recruit in the U.S. for its Canadian center, it welcomes U.S. workers, who make up about 5% of its workforce there.

Other Canadian service providers are also hiring, but none appears to be actively recruiting U.S. workers. They're finding what they need from Canada's labor pool, although they encourage U.S. IT employees to compete for jobs there.

"There is always a demand for good IT people, but to say there is a shortage - I wouldn't say that," said Peter Thompson, CEO of RIS Resource Information Systems Inc. The Calgary, Alberta-based nearshore services provider employs approximately 400 workers, and that number is growing annually by about 20%, he said.

Open Invitation

CGI Group Inc., which is Canada's largest IT company in terms of the number of its employees, increased its head count by more than 5,000 in the past year, from 14,600 to more than 20,000. Half of that growth came from acquisitions of other companies.

"We've been quietly growing very rapidly," said Eileen Murphy, a spokeswoman for Montreal-based CGI Group. She said some of the Canadabased workers are likely U.S. expatriates, but the company doesn't maintain such statistics. It hasn't had to recruit in the U.S. to fill Canadian jobs, Murphy said.

But a top Canadian government official, Keith Parsonage, director general of Industry Canada's Information and Communications Technologies branch, said there's a demand for U.S. workers in Canada, and the country has a liberal immigration policy to encourage IT workers to head north. All U.S. workers need is to have a job offer and meet certain educational and training criteria, he said.

Canada's com-

puter services sec-

tor grew 3.2% in 2002, according to government statistics. But total IT employment in Canada, estimated at about 600,000 workers, declined 1.3% last vear.

Less Bad Drop in IT jobs from 2001 to 2002: **CANADA**

The U.S. hightech industry, in comparison, lost 8% of its jobs last year, declining from 6.5 million in 2001 to 6 million last year, according to a report released last month by AEA, an industry trade group in Washington.

Still, no one is

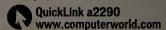
saying that Canada is at the end of the IT rainbow. Canadian IT recruiters say they see little evidence of a big rebound in the Canadian tech

sector, or much interest from U.S. workers in Canadian jobs.

"I don't sense that Canada has any economic advantage in terms of opportunities over what the States can offer," said Murray Conron, an IT recruiter at D.L. Hart & Associates in Toronto. "I do not see trends that U.S. professionals are looking for jobs up here." • 43164

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Ottawa's Pitch: 'Come to Canada'

U.S. IT workers are needed and encouraged to take jobs in Canada, said Keith Parsonage, director general of Industry Canada's Information and Communications Technologies branch. In an interview last week with Computerworld's Patrick Thibodeau, Parsonage discussed the opportunities and lifestyle that await IT workers in Canada. Excerpts from that interview follow:

Many U.S. companies are sending application and maintenance development work to Canada. What impact is that having on your IT sector? It is very difficult to break down the statistics overall. But the computer services area, throughout the whole upturn in the late 1990s and the downturn, continued to grow steadily at 8% to 9% a year. It was not affected at all by the tech

The value of the Canadian dollar, though still favorable to the U.S., has been on the rise. What impact will that have on near-shore development? I think it's going to force it to be that much sharper. But I don't think it's going to rise to where you will see a loss of our competitive edge.

What are your cost advantages? Our health care system confers very significant benefits to employers. We have a universal health care program here in

So the employer in Canada pays a fraction of what a U.S. firm pays for health care? Exactly. That's one of the reasons why we're so competitive -

> because of the difference in health care cost. The other big issue is turnover. For some strange reason, Cana-

dians are pretty loyal to their employers.

How healthy is your technology labor market? At the moment, we have over 600,000 [IT] workers. As of September, the unemployment rate for [IT] professionals was 4.8% vs. an overall unemployment rate of 7.8%.

Canada has suffered a brain drain of talented tech workers heading to the States. Is that reversing? Certainly there

was a phenomenon of talent moving down to the States during those boom years. But we also had talent from around the world pouring into Canada because we had a much more liberal immigration policy, particularly with software workers, in which we would actually fasttrack them into the country. Which is quite different from the H-1B visa process which you have in the States.

So it's easy for a U.S. citizen to work in Canada? Absolutely. They have to show a bona fide job offer in Canada and then meet a career profile for various types of tech workers that sets requirements for education, training and programming language knowledge, published by the Software Human Resource Council.

Is there a demand for U.S. workers in Canada? Yes, there is. Come to Canada. In fact, you may end up working for your same company.

Certainly there was a phenomenon of talent moving down to the States during those boom years. But we also had talent from around the world pouring into Canada because we had a much more liberal immigration policy.

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Users Struggle to Pinpoint Sarbanes-Oxley IT Costs

Many see it as an ongoing effort with no real end in sight

BY THOMAS HOFFMAN

ARBANES-OXLEY readiness costs can be hard for companies to pin down, partly because complying with the new financial reporting law isn't a one-time event like Y2k.

For instance, Eastman
Chemical Co. hasn't even tried
to evaluate the IT costs associated with its Sarbanes-Oxley
Act compliance initiative, said
Mark Montgomery, director of
administrative operations support and technology systems
at the Kingsport, Tenn.-based
chemicals maker. He noted
that the required work is
viewed as "an ongoing effort,"
not a finite project.

Montgomery and several other corporate managers said Sarbanes-Oxley's mandate that companies annually document and attest to the effectiveness of their financial controls means that compliance work will have to be done on a continual basis.

"A lot of people have this mind-set that it's a one-time project," said Kyle Didier, vice president of finance at Regis Corp., a Minneapolis-based operator of 9,700 hair salons in the U.S. and Europe. But he added that he expects Regis to test its internal financial controls regularly using a software tool called Certainty that was developed by Movaris Inc. in Campbell, Calif.

Regis has been working on Sarbanes-Oxley readiness for the past nine months and expects to complete an initial round of documentation and testing by year's end. Didier said the company will likely come slightly more than \$100,000 in IT costs over the coasse of its compliance effect. That includes both soft-

ware and manpower expenses, he added.

John Van Decker, an analyst at Meta Group Inc. in Stamford, Conn., said most companies are currently focusing on Section 404 of the law, which requires CEOs and chief financial officers to certify the effectiveness of the financial controls they have in place. Companies with market capitalizations of \$75 million or more have to comply for fiscal years that end on or after June 15, 2004. Smaller businesses and foreign-owned companies have until April 15, 2005.

Financial Executives International, a Florham Park, N.J.based association of corporate finance managers, surveyed its members last May on cost es-

Compliance Costs

\$480k is the average amount that companies expect to spend on software, consulting and training related to Section 404 of Sarbanes-Oxley.

BASE: 83 financial executives who work at companies with average annual revenue of \$3.27B, surveyed in May SOURCE: FINAL EXECUTIVES NTERNATIONAL, FLORHAM PARK, N.J.

timates for complying with Section 404. On average, the 83 respondents expect to spend about \$480,000 on software, consulting services and employee training in advance of the compliance deadlines.

Mark Nagelvoort, vice president and internal control manager at Hudson United Bank

in Mahwah, N.J., said the subsidiary of Hudson United Bancorp expects its IT costs tied to Sarbanes-Oxley to come in at less than \$500,000, though he declined to be more specific. That includes the bank's use of a software tool called SOXA Accelerator from HandySoft Global Corp. in Vienna, Va., plus expenses for 10 IT staffers who will spend between 5% and 10% of their time working on Sarbanes-Oxley readiness.

"We're saving significant dollars because we're utilizing almost all in-house personnel," Nagelvoort said. And because the banking industry is highly regulated, much of the information that Hudson United needs has already been documented for internal and external auditors, he added.

John Hagerty, an analyst at AMR Research Inc. in Boston, estimates that on average Fortune 1,000 companies will spend about \$2.5 million on Sarbanes-Oxley work this year. Technology costs represent just 5% to 10% of the overall tab, Hagerty said, although that doesn't reflect the cost of the IT-related staff time being dedicated to compliance efforts.

Hagerty added, though, that it's tough to pinpoint an average IT spending figure for Sarbanes-Oxley "because it's influenced by organizational and systems complexity." • 43114

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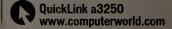
FACTOID

The average total

of expected 2004 IT spending as a

percentage of revenue

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Some IT Purse Strings May Be Loosened Next Year

Forecasters predict small increase overall but say spending plans differ by industry

BY THOMAS HOFFMAN

IT managers who have quickly reacted to demands for costcutting over the past three years could see a payback in the form of discretionary spending increases next year, according to several reports and interviews with CIOs.

But 2004 IT spending plans vary widely by industry, said Howard Rubin, executive vice president at Meta Group Inc. in Stamford, Conn. For example, Meta predicted in a report released Nov. 18 that the insurance and manufacturing sec-

tors will each see double-digit percentage gains on a year-over-year basis, while spending in the banking and energy industries will decline by 12% and 15%, respectively.

Meta's projected 12% increase in insurance IT spending maps with plans at Reinsurance Group of America Inc. in Chesterfield, Mo. Demand for new projects from its business units will drive a 12.4% rise in tech spending next year even though Reinsurance Group's IT infrastructure costs continue to decline, said Rick Nolle, the company's vice president of IT.

Allstate Insurance Co. hasn't finalized its 2004 IT budget. But Cathy Brune, Allstate's

chief technology
officer, said the
Northbrook, Ill.,
company won't
spend any less
than it does this
year. It also expects to allocate a

higher percentage of funding to strategic projects, partly as a result of its ability to reduce IT maintenance costs through offshore outsourcing.

Rubin said that in the insurance industry, "we're seeing companies moving along at somewhat of a recovery mode and investing in IT for future growth and to gain a better

customer view."
Meta also expects
manufacturers to
invest more heavily in warehousing
and distribution
applications to increase efficiency
and tighten links
with suppliers.
The forecasts are
based on an independently funded

survey of 860 IT managers in 21 industries.

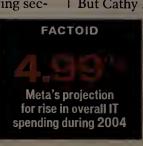
Another reason why manufacturers might see a boost in IT spending is "the fact that they haven't spent anything [on discretionary projects] for the past two and a half years," said John Parkinson, chief technologist for the Americas

region at consulting firm Cap Gemini Ernst & Young U.S. LLC in Chicago.

In a report released last month, Forrester Research Inc. predicted that the retail and insurance industries will see the largest increases in IT spending next year. But Forrester's forecasts are relatively modest. Analyst Tom Pohl-

> mann said IT budgets in those two industries will likely rise by 4.4% and 3.4%, respectively. The report, funded by Cambridge, Mass.-based Forrester, was based on a survey of 820 IT executives in October.

On the other hand, National Grange Mutual Insurance Co. in Keene, N.H., plans a slight drop in its IT budget. CIO Joel Gelb said that improved governance, including the use of portfolio management techniques, has helped the company "focus IT efforts and control costs." • 42803



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Continued from page 1

Lobbying

said privately that they agreed with the general perception that such groups are pushing political agendas at the cost of improved security.

"ITAA and BSA continue to put forth resistance that seems based more on visceral than logical grounds," said the president of another industry consortium that regularly deals with these groups.
"They continue to say that externally defined security requirements, either from the government or users, stifle innovation, which strikes me as a classic red herring."

Amit Yoran, director of the National Cyber Security Division at the DHS, said that in his interactions with the vendor groups co-sponsoring the summit, he has witnessed "a genuine interest and desire to improve the state of cybersecurity." And while the concern about vendor resistance to regulation is a valid one, Yoran said, vendors are for the most part "putting their money where their mouths are."

"Before advocating specific legislative initiatives, they want to have a good, clear understanding of the upside and the impact of that legislation with respect to its effect on industry," said Yoran. "We need to make sure we identify how they can improve the quality of their software, not just hold them accountable for doing it. We can't just say that software will be more secure because we mandate it."

Taking Responsibility

TechNet President Rick White said there's no question that cybersecurity is a multifaceted problem that the vendor community must also take responsibility for.

"There's already a lot of pressure on a lot of people to deliver the right products and minimize problems," said White. "[But] even if we start delivering better products tomorrow, there's still going to be a cybersecurity problem."

The BSA and the Chamber of Commerce didn't respond to requests for comment.

Harris Miller, president of the Arlington, Va.-based ITAA, dared anyone to match the Ultimately, we the consumers and businesses should be held responsible. If we continue to buy Swiss cheese, they'll continue to sell it.

KEITH MORGAN, CHIEF OF INFORMATION SECURITY, TERRADON COMMUNICATIONS GROUP

ITAA's leadership on security. "If you write anything other than that ITAA is the leader in identifying the issue of cybersecurity as a critical issue for our economy, our government, our society and IT users, you would be factually inaccurate," Miller said.

But the practice of raising awareness isn't what users and analysts are questioning. It's the vendor community's economically driven agenda to avoid regulation that would increase development costs and reduce profit margins, IT executives said.

"I don't see any of these organizations promoting security," said MacDonnell Ulsch, managing director of Janus Risk Management Inc. in Marlboro, Mass. "They are promoting agendas [that] don't make this a more secure world."

Tom Kellermann, senior data risk management specialist at The World Bank in Washington, said the approach of these groups to avoid regulation at any cost is an obstacle to improving security. "Legislation or regulatory efforts will help, but... there are significant lobbying efforts by entrenched institutions to avoid things that adversely affect the bottom line," said Kellermann.

Misdirected Effort

Buck Fleming, the acting executive director of the Cyber Incident Detection & Data
Analysis Center, a Philadelphia-based volunteer partnership of more than a dozen IT vendors, user companies and the FBI's InfraGard program, said the lobbying power of some vendor groups is preventing new ideas from getting

an audience on Capitol Hill.

"We made the mistake of spending time, money and brainpower coming up with a [technical] approach [to improving security] that we thought deserved a hearing," said Fleming, noting that he has been unable to capture the attention of anyone in government for the past year. "We didn't understand that [the money] should have first been directed to a lobbying effort."

But the vendor lobby is playing a risky game, said Alan Paller, director of research at the SANS Institute in Bethesda, Md., who supports security benchmarks and public reporting. "Eventually, Congress is going to realize that industry is telling them one thing in the hearings and another thing privately," he said.

Consequently, security is unlikely to improve anytime soon, said Keith Morgan, chief of information security at Terradon Communications Group LLC in Nitro, W.Va. "Ultimately, we the consumers and businesses should be held responsible," he said. "If we continue to buy Swiss cheese, they'll continue to sell it." • 43188

EMC Taps Database Archiving Tool For Its Information Life-cycle Suite

OuterBay deal gives users software for migrating old data

BY LUCAS MEARIAN

In a bid to shore up a key piece of its information life-cycle management (ILM) strategy, EMC Corp. today will announce a software partnership aimed at letting IT managers reduce the size of databases by moving old data to other storage devices.

"I think it fills a hole in our ILM strategy, and it's one of the few holes we have left," said Mark Sorenson, EMC's can'er vice president of information access and recovery aftwere. He added that the Hopkinton, Mass.-based storage vendor plans to introduce

its first full ILM product suite in next year's first quarter.

Earlier this year, EMC agreed to buy both Legato Software Inc. and Documentum Inc. as part of its effort to cobble together an integrated set of tools for managing the entire life cycle of data. But Sorenson said EMC will rely on third-party vendors such as OuterBay Technologies Inc. in Campbell, Calif., to sell users database archiving software.

OuterBay's LiveArchive tool can identify inactive information in databases and relocate the data within the same disk array or move it to less-expensive storage, based on policies set by users. Although the agreement being announced today isn't mutually exclusive, EMC said OuterBay will be its

"preferred vendor" for database archiving software.

LiveArchive is being integrated with EMC's Control-Center storage management tools as part of the deal, the two companies said.

Lois Hughes, senior manager of business applications systems at Tektronix Inc., said the Beaverton, Ore.-based maker of test and measurement equipment was one of the first users to install Live-Archive when it was released last year. Tektronix has used the archiving software to reduce the size of an Oracle transaction-processing database by 56% and has reaped a 42% increase in I/O performance as a result, she said.

LiveArchive uses data age policies set by Tektronix's IT

staff to purge old transactions from the Oracle database, which runs on a Sun Solaris server. The software then adds the historical records to a copy of the production environment that's stored in a separate database for audit and reporting uses, Hughes said.

"The beauty of it is that it maintains your transaction integrity, and there's no user training needed because your archive environment looks exactly like your production en-

TECHNOLOGY DETAILS

LiveArchive

SUPPORTED NOW:
■ Oracle, DB2, SQ! Server,
Sybase and Informix d tabases
■ Oracle and PeopleSoft apps

PLANNED ADDITIONS:

SAP and Siebel applications, due in first quarter of next year

Outlook and No es e-mai applications, due by mid-2004

vironment," she said.

Carolyn DiCenzo, an analyst at Gartner Inc., said the Outer-Bay deal won't turn EMC into an ILM software and services vendor overnight. But it shows that EMC executives "understand the pieces they need and that they are working to incorporate that into their design," DiCenzo said.

In a related matter, Dell Inc.'s top storage executive said during a conference call with EMC officials that the two companies likely will look into bundling their hardware and software products to create packaged ILM offerings.

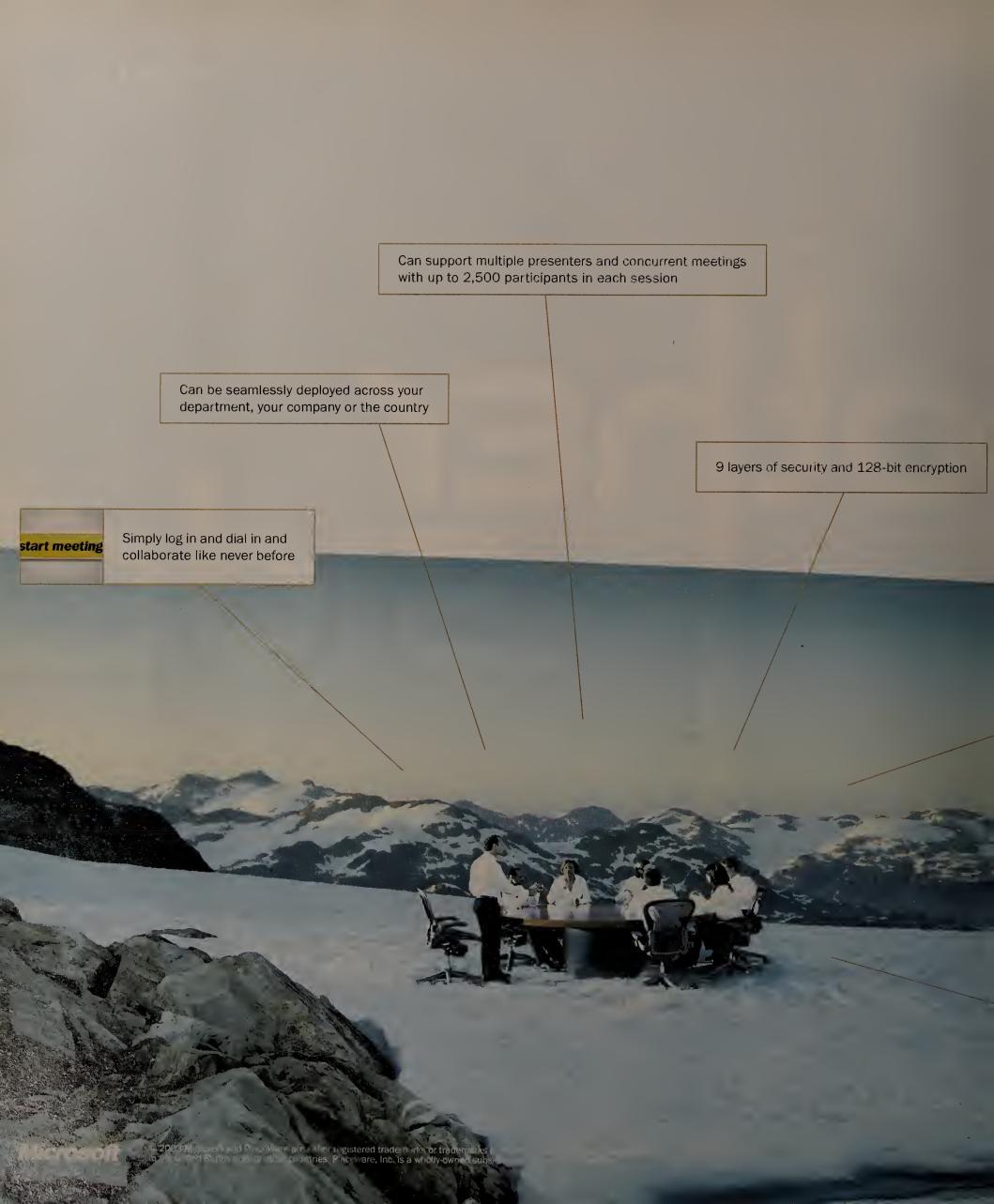
"We believe ILM is the way customers want to go," said Darren Thomas, Dell's general manager of storage. Dell resells EMC's Clariion line of midrange disk arrays under a 2-year-old deal that has produced more than 7,000 installations thus far, according to the two companies. 43165

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MARYFRAN JOHNSON

Satisfying Supergeeks

ID YOU REALIZE," my daughter asked me one day, "that Dad has about 20 computer keyboards in the basement? What's up with that?"

Great question, I thought. Too bad I'll never get a straight answer. To my eternal chagrin, I've found that direct inquiries about technology purchases at

my house always seem to end up in dead-end conversations about how much I spend on shoes. Those of us who dwell in the Kingdom of the Supergeek eventually learn to quit asking things like, "What was in that big box from eBay?" ("Uh, nothing for you. Are those new shoes?")

What some of us never learn, alas, is how to stop

searching for that perfect holiday gift for the supertechie who has everything (well, as far as we can tell, anyway). That's why I give thanks each year for this very issue, wherein we publish our "Cool Stuff" feature (on page 23, and online at QuickLink 42520). Technology writer Russell Kay does an outstanding job of sorting through this season's lineup of gadgets and gizmos for gift-giving. I may just have to buy Russ a Duct-Tape Wallet (\$10 to \$30 at www.ducti.com) to show my gratitude.

But rather than stumble down the wrong path to the ideal geek gift, I decided to test-market some of our choices with my No. 1 supergeek. A focus group of one, as it were.

We started with the Duct-Tape Wallet, which got an immediate ranking of "outstanding!" The only drawback, he added, was that "you can make your own for about 30 cents." Not an unexpected observation from a man whose current walls that sturdy rubber band holding this wash and credit cards together in a tamp.



MARYFRAM JOHNSON is editor in chief of Computerworld You can contact her at maryfran_johnson@

So how about the io Digital Pen and Paper from Logitech (\$199 at www.logitech.com)? Snort of derision. "For \$200, I'll hire someone to take my notes for me."

Moving on. Would a USB watch appeal? (These start at \$80 and are made by multiple manufacturers.) Supergeek looked them over and took a pass,

concluding as our reviewer did that they're nothing special even with the Universal Serial Bus cable. "If you're connecting to a computer anyway, why doesn't it set the time with NTP? Or pick up the WWV radio signals?" he demanded, referring to the Network Time Protocol and to the national time service out of

Boulder, Colo. (I pretended the question was rhetorical.)

One oddball selection that held surprising appeal was Rivet, a line of fasteners for securing cell phones, pagers and other road-warrior gear to belt clips, shoulder straps or dashboards (starting at \$20, at www.roadwired.com). "I could see using that for all kind of things," he mused, sounding somehow a bit sinister. (Note to self: I could live to regret this one.)

But the truly biggest hit of all was the CarChip (starting at \$130 at www.davisnet.com). This plug-in monitoring device for a car's diagnostic port "may be the ultimate Big Brother device with which to torment your teenager," our reviewer writes, since it can record trip details, including speed and start and stop times. "I wish I knew more about how to hack the car," Supergeek said dreamily.

By the time we wrapped up our Cool Stuff tour, I had all the vital shopping data I needed. All that's left to do now is log on, point, click and wait for delivery.

I'll just have to hope that Supergeek doesn't already have 19 in the basement. • 43121



PIMM FOX

Novell + SUSE = Problems

ONVENTIONAL wisdom about IT vendor takeovers is completely missing in Novell's \$210 million cash deal to purchase SUSE Linux. That makes me uneasy.

The bright side of the picture, as painted by Novell, is clear. The move is a signal that NetWare does have a path to the Linux platform. Novell's purchase in August of Boston-based Ximian points in the same direction. Novell and Ximian are now working on a way for Microsoft .Net applications to run on Linux, Unix and Windows and on developing a Linux desktop. And, yes, this is a real challenge to Red Hat, the leading Linux distributor.

Aside from this emphasis on Linux,

a \$50 million infusion from IBM endorses Novell's relevance. As Earl Perkins, a Meta Group analyst, said, "This means Novell's got a dog in the hunt."

But what kind of hunt is it?

As a rule, IT vendor takeovers aren't easy wins unless you're looking at big



reductions in head count, juicy customer order books or expansion into revenue-generating areas such as consulting services. Those don't seem to be in this deal. Another aspect I find troubling is simple geography. This deal spans multiple time zones and aims to integrate different cultures, mirroring the situation in the misfiring DaimlerChrysler merger, which seems to have benefited only airlines flying between Detroit and Stuttgart.

Linux offers a great IT model for users, but the business model for vendors is unclear. Red Hat made just \$5 million on sales of \$106 million last year. SUSE is privately held, so figures aren't available, but if Novell is after Linux credibility, why not assemble a team of Linux developers to port Net-Ware's administration and management features to the open-source operating system?

If this is a plan to nab support from customers frustrated with Microsoft's licensing policies, great — but that isn't a business strategy. While this takeover is the work of new executive blood at Novell giddy with new cash in the bank, it faces the same hazards as previous Novell takeovers, such as Unix System Laboratories/UnixWare. Indeed, this could be one of those deals that's good for the customer, good for the technology, but bad for the acquiring company, which fails to see the expected money flow in.

A purchase of Red Hat would have positioned Novell as the leader in Linux and generated the kind of excitement that leads to real shifts in market value. As it is, SUSE makes out well (it's getting more than \$500,000 per employee) and Novell buys some more time.

The next couple of years will determine whether this is a visionary or stopgap move. In the meantime, the real moneymaker will be the airline that flies the Salt Lake City-to-Nuremberg route. • 43073

DAN GILLMOR

IT Economy: Half-Empty, And Leaking

O THE ECONOMY is finally improving. But is this the real thing — a significant, long-lasting recovery — or just a false dawn? For IT, the answer to that question isn't trivial.

The enormous tax cuts have begun to make a difference. So has a big boost in government spending, notably on military and domestic homeland security programs. Meanwhile, productivity is improving dramatically. It all adds up to an economy that, for now, is making real strides forward.

Tech spending seems to be rebounding a bit. Cisco Systems' most recent numbers, showing stellar improvement in earnings, suggest that the worst may be over. Whether there's significant pent-up demand for IT spending (other than IT staff) is another matter; the evidence simply isn't compelling on this point.

What is compelling is the economic danger we face if the U.S. government's fiscal gambles fail, and if some

global trends continue. On this, the evidence is worrisome.

The recklessness of current fiscal policy is astounding. President Bush and the Republican-controlled Congress, aided by some Democrats who would have to hire a detective agency to locate their spines, have brought back the era of massive budget deficits. The red ink isn't all their doing, but they're making the situation vastly, dangerously worse.

The Federal Reserve's low-interestrate policies, which were needed to prevent a real disaster after the implosion of the tech bubble, have become dangerous in their own right. They've encouraged the continuing inflation of a housing bubble that, when it bursts, will reverberate much more widely in the overall economy than did the Nasdaq collapse.

Speaking of the stock market, why are so many tech companies selling at



DAN GILLMOR is technology columnist at the San Jose Mercury News. Contact him at dgillmor@sjmercury.com.

such high multiples again? Now, eBay is a heck of a franchise, but even after a recent correction, it was still selling at 87 times earnings in mid-November. Takes your breath away.

Meanwhile, investors get new evidence every day that Wall Street kecps rigging the markets against the little guy on behalf of the insiders. Under Democratic and Republican administrations in the past

two decades, shafting the small investor has not just gone unpunished. It's been policy. And one of these days, what's left of trust in the system will evaporate entirely unless true capitalists stand up to save capitalism.

IT departments have another tendency to ponder: the rapid decamping of jobs away from the U.S. The so-called jobless recovery has been nothing of the sort; it's just that the new jobs are mostly in India, China and other places that offer corporate

America a better deal. The financial reasons for this transition are notable, but as we move jobs that require skilled labor to other nations, we may well be undermining our own future. Many of Wal-Mart's employees qualify for government assistance. Is that the kind of American workforce we want to create?

The best news for IT in all this is the equally compelling necd for companies and governments to make better use of the resources they have. Sometimes, waiting is the best policy, especially when we know we can catch up quickly; first movers don't always hold the right cards. But we can also wait too long.

I wish I had more confidence that our economy will support what's needed in the long run. We're borrowing against our future, and I'm not sure how we're going pay this debt. • 43071

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READERS' LETTERS

Future of Analysts

THE COLUMN "Businessy iT"
[QuickLink 42467] is complete nonsense. Analysts are a connecting link between business and technology, and they grow on technology soil. Eliminating all technology jobs will quickly eliminate all analysts. We can see what outsourcing already has done; I don't know one high school graduate who plans to pursue further education in programming.

Vladimir Gendler

Consultant,

Huntington Beach, Calif.

Bounty Hunt

A "Experts, IT Managers Say Microsoft Should Forget Bounty, Focus on Security" [QuickLink 42619]. Well, experts and IT managers are wrong. Microsoft has the money to do both, and it should.

Hank Guckes

Senior technology director, Philadelphia

T SEEMS that no one is recalling that many of the exploits being used by the virus writers are items that have been added to Microsoft's software at users' request to enhance interoperability. Many of the exploits are not bugs, but features of the product that allow programmers, such as myself, to programmatically control Office apps and the operating system.

Alex Buttery

Mount Laurel, N.J.

THIS BOUNTY IS a public relations ploy to divert attention from the real problem: Microsoft doesn't test and analyze its code well enough before it sends it out the door.

Mike Echlin

Analyst, Deep River, Ontario

'It's the GUI, Stupid!'

F NOVELL has any chance, this is it ["Linux Infusion Gives Novell a Needed Boost," QuickLink 42677]. The Linux kernel should give it the strong application server that it has always lacked.

But Novell still needs to post a banner in its developers' quarters saying, "It's the GUI, stupid!" Every Novell technical class I've taken has had Windows network admins present who praise NetWare's capabilities, but whine like stuck pigs about the interface. We're a typical "last-gasp Novell" small business that ultimately has to go where our ERP vendor goes. Microsoft successfully stalked this territory with SQL Server, and Novell has to win back the ERP vendors before it loses the likes of us – reluctantly, but for good.

Bill Pratt

Vice president, MIS, Kinamed Inc., Camarillo, Calif.

Getting Alignment

As a CONSULTANT working with Fortune 500 companies to quantify the costs and benefits of IT decisions, I have found that there are a few areas where a gap between IT and business almost always exists ["Corporate Execs Try New Ways to Align IT With Business Units," QuickLink 42353]:

- The IT executives don't have the financial skills to quantify the financials surrounding the IT project, especially on the benefits side.
- The business leaders don't have the technical skills to trust that the benefits really exist.

The one thing that can bridge this gap is truly objective analysis of the project's cost and benefits, but most organizations have a hard time doing that analysis.

The hardest part is understanding that IT is responsible only for implementation and maintenance. The business side must be taxed with changes in process, culture and utilization if any benefits are to be realized.

If the change process takes too long, the outlined benefits can erode quickly. Benefits don't start accumulating until the whole change cycle has taken place, and many projects can become obsolete before break-even is reached.

Kevin Kraft

Director of sales/sales development, Excipio
Consulting LLC, Minneapolis, kkraft@excipio.net

computerworld welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, ietlers editor, Computerworld, PO Box 9171, 500 Old Connecticut Path, Framingham, Mass. 01701. Fax: (508) 879-4843. E mail: letters@computerworld.com.

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TECHNOLOGY

QUICKSTUDY WiMax

The 802.16 wireless metropolitan-area network standard that's under development, widely referred to as WiMax, is aimed at making broadband network access available without the expense of stringing wires or the limitations of DSL. Page 34



SECURITY MANAGER'S JOURNAL Bad Policy Makes For Weak Passwords

Unclear policies and sloppy security practices allow too many weak passwords to linger at Vince Tuesday's company. Page 38

QUOTE OF THE WEEK

It occurred to me that software with the intelligence of a mouse or a monkey would have the frightening capacity to launch a new form of network-based warfare. Paul A. Strassmann, columnist, page 41

Super-Geek Specials

Grand Canyon Display Series →

MANUFACTURER: Liebermann Inc., Los Angeles

WEB SITE: www.go-L.com **PRICE:** Starting at \$8,500

Except in a hot dance club or a humongous trade show exhibit, the most spectacular monitors you're ever likely to see are the Grand Canyon Displays. These ultrawide screens deliver resolutions up to 25 times better than VGA (6,400 by 1,200 pixels), with wide viewing angles, fast video response, excellent color fidelity and red-green-blue auto-geometry-sensing color correction. Available in 76-, 81- and 92-in. sizes, with price tags to match: \$8,500, \$12,500 and \$17,500, respectively.

Continued on page 24





Perhaps it's a sign of a revitalized economy. There are gadgets and gizmos aplenty for geeks of all ages on your gift list. By Russell Kay





Continued from page 23

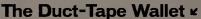
io Digital Pen →

MANUFACTURER: Logitech Inc., Fremont, Calif. WEB SITE: www.logitech.com

PRICE: \$199

Lots of computer users still want to write or take notes with pen and paper. You may remember from a few years ago the CrossPad, which tried to capture such jottings in computer-readable form, or the less-than-

successful IBM TransNote laptop/pad hybrid. And current tablet PCs don't cut it for users who don't like the feel of writing on glass. Logitech offers an alternative: an electronic pen - a very large one - called the io Digital Pen and Paper. For \$199, you can take and store up to 40 pages of notes, drawings and more and download them to your PC, where you can invoke handwriting recognition to hopefully turn your scribbling into editable text. One catch: You must use specially formatted paper, which is available in the form of pads, notebooks, graph paper and yellow Post-it notes.



MANUFACTURER: Ducti. Monument. Colo.

WEB SITE: www.ducti.com **PRICE:** \$10-\$30

Duct tape is the ultimate in low tech - which gives it, paradoxically, a lot of high-tech appeal. Ducti makes wallets and checkbooks from specially engineered duct tape that won't lift, peel apart, get sticky or crud up with lint from your pocket or purse. According to reseller ThinkGeek.com, "These durable and well-constructed duct tape wallets are great for all programmers, but Perl coders might enjoy them the most."

Ambient Orb

MANUFACTURER: Ambient Devices Inc., Cambridge, Mass. WEB SITE: www.ambientdevices.com **PRICE:** \$150

It doesn't really do anything, but it's curiously compelling. The Ambient Orb is a lighted sphere of frosted glass that slowly changes among thousands of colors to reflect vagaries of the weather, the state of the stock market, whether your boss is online or other conditions. You plug the Orb into a 110-volt outlet, and it's automatically up and running

on a nationwide wireless network - no connection to a PC or the Internet is required. You can select your Orb's channel via a Web interface, and it will be updated regularly, perhaps as often as every few minutes. Out of the box, the Orb reflects the Dow Jones Index, glowing green to indicate prices up, red when they're down, yellow when things are calm. If there's a change of more than 1.5%, the Orb pulsates. Some weather and stock reports are free, and others are available at extra cost. A developer interface lets Web programmers control the color of their Orbs with a simple HTTP "get" call.

USB Watches →

MANUFACTURERS: Laks Watch Co., Vienna, Peripheral Enhancements Corp., Ada, Okla.,

WEB SITES: www.laks.com, www.peripheral.com PRICE: Start at \$80

Pull out the Universal Serial Bus cable attached to your wristwatch strap, plug it into

your computer and watch people's eyes bug out. Actual-

ly, it's just a normal quartz-movement watch with one extra - a built-in flash memory chip, available in models that hold up to 256MB. The memory works fine, and the stowaway USB cable is handy, but as a watch, it's nothing special - it only tells time. An included USB extension cable makes it a little easier to connect to your computer without unbuckling the strap or risking carpal tunnel problems.

Aura Workstation

MANUFACTURER: Poetic Technologies, Montreal

WEB SITE: www.poetictech.com PRICE: Approximately \$5,000

If money's no object, and you want to spend the most and highest-quality time with your computer, look into the Aura workstation from Poetic Technologies. This all-in-one workplace environment is essentially self-contained with respect to lighting, air circulation, heating (optional) and power distribu-

> tion. The seat can be adjusted in seven ways, and all work and seating surfaces can be moved. Aura can handle up to four monitors. The entire unit rotates automatically, if desired, to help provide the best views or follow changes in natural lighting.

> >

Music to My Ears

Dell's DJ Digital Jukebox +

MANUFACTURER: Dell Inc.

WEB SITE: www.dell4me.com

PRICE: Starts at \$249

The best competitor yet to Apple Computer Inc.'s iPod, Dell's new Digital Jukebox comes with a 15GB or 20GB hard drive and a battery good for 16 hours of MP3 or Windows Media Audio lis-

tening. The interface isn't as nice as iPod's, but at \$249 or \$299, it's much cheaper, and its glowing blue dial and buttons look cool in the dark. Taking another cue

from Apple, Dell has hooked up with a 99-cents-per-song download service.



MANUFACTURER: Verbatim Corp., Charlotte, N.C.

WEB SITE: www.verbatim.com

PRICE: \$4 for DVD blanks, \$13 for 10-pack of CD-R If you're like me, you're burning a lot of CDs these days, whether for backup or for music compilations. And if you like

to fool with home video, you're probably storing your movies on DVDs so you can watch them on your television. Verbatim has some new products for us all: blank CD-R disks that look like 45-rpm records (remem-

ber records?) and CD-Rs with blank labels that can be printed on by ink-jet printers, as well as blank DVD±Rs that look like film reels. DigitalMovie DVD blanks run about \$12 for a three-pack, while Digital Vinyl CD-Rs are \$13 per

Nero 6 Ultra Edition

MANUFACTURER: Ahead Software Inc., Glendale, Calif.

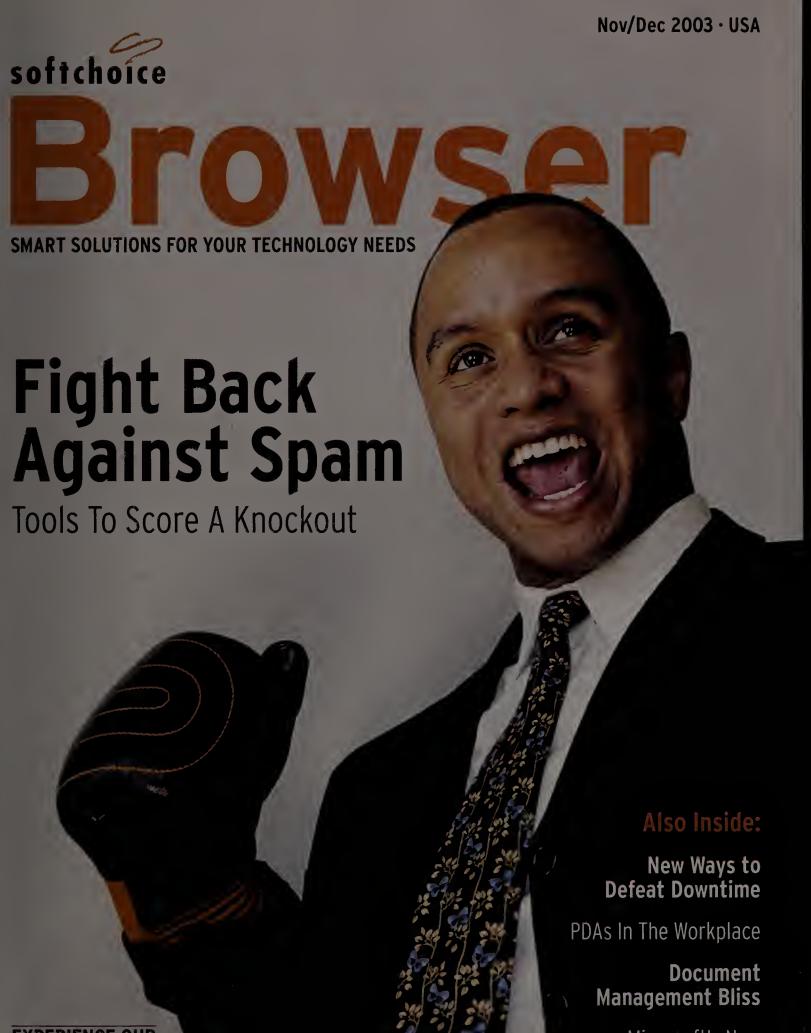
WEB SITE: www.nero.com

PRICE: \$99 (or \$69 via download)

I've used Ahead Software's Nero Burning ROM software to burn CDs for years. The newest release, Nero 6 Ultra Edition, has expanded and integrated capabilities,

Continued on page 25





EXPERIENCE OUR LIVE QUOTE AND YOU COULD WIN \$1000 SEE PAGE 13 FOR DETAILS

Microsoft's New Office System

Plus! High-Tech Horoscopes IT Professional Opinion Survey (cont.) As an IT professional, what do you really want? A) Lunch anywhere other than your desk B) A supplier that actually makes your life easier C) To leave by 5 pm, just once (E) ALL OF THE ABOVE Anything else, Please state: PE 5/5

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So you've found the perfect solution. Now, how do you get the best price? The easiest approach (we think) is to ask the experts. At Softchoice, strong relations with industry partners mean significant savings for you. We lend a hand with navigating the wide range of volume purchasing programs and leasing options so you always get the greatest manufacturer discount possible. Our goal is to help you find the best way to purchase your technology.

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WE HELP YOU MANAGE WHAT YOU'VE GOT

It's a fact. Staying on top of what technology you have and how it's being used can actually save you money. At Softchoice we'll help you do this through purchase history reporting, license tracking, and IT asset management services. So when you're doing a software migration, making your budget or upgrading your hardware, you've got the information you need to make smart decisions. Would you have it any other way?

FOR PRODUCTS, PRICING ANSWERS AND ADVICE CONTACT SOFTCHOICE

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Browser

IN THIS ISSUE •

KEEP IT SAFE • A holistic look at defeating downtime.	4
KEEPING PACE • Getting up to speed on Microsoft Software Assurance.	6
TECH ON THE GO • Pumped up PDAs for the enterprise.	7
SMART MONEY	3
FEATURE	0
HORSE POWER	4
NEW ARRIVALS	5
COLLABORATE	7
HIGH TECH HOROSCOPES	3

EXPERIENCE OUR LIVE QUOTE AND YOU COULD WIN \$1000

SEE PAGE 13 FOR THE DETAILS

ON THE COVER

Michael Hagley -Softchoice Corporation, Manager of IT Architecture and Operations

Photo: Jacob Sharrard

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Disaster Recovery:

To Be or Not To Be

The great power outage of 2003 cut the juice on 50 million people and left many businesses groping in the dark. Considering the other challenges arrayed against uptime, it's apparent that a solid recovery plan - and proven backup, storage and surge protection - can make the difference between taking things in stride and just plain falling down.

Delivering End-user Recovery

IBM's Rapid Restore technology is a one-button recovery and restore solution to help you rescue lost data, applications and operating systems with the touch of a button. By creating a complete image backup and storing it in a protected partition on the hard drive, IBM Rapid Restore can restore the complete image often in less than 20 minutes. This unique software comes preloaded on all new IBM ThinkPad notebooks and ThinkCentre desktops. By offering an enduser recovery program, you'll reduce downtime and avoid help desk calls, freeing up IT resources to focus on more important things.

To learn more, go to www.softchoice.com/browser

IBM Rapid Restore helps protect against:

- User-induced software crashes
- Software application and operating system corruption
- Virus activity and intrusion





Ask yourself: Is IT safe?

- Has server infrastructure been prioritized into mission-critical or expendable?
- Is your disaster recovery plan tested regularly?
- Is business continuity top of mind for your business leaders?
- Do you collect information about network particulars when employees leave?
- Do you plan according to higher potential adversities?

Keep in Mind Kingston Memory Upgrades

The IBM Thinkpad

Pentium M 1.3 GHz \$1.980

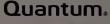
T40 2373 with Rapid Restore™

With Kingston's 100% compatibility program, the memory upgrade you choose for the IBM Thinkpad T40 is designed to work right.

Get virtually any configuration up to 2GB. 16B... \$932

Get the MONSTROUS Capacity of a Super Drive

The Quantum SDLT 600 Tape Drive delivers huge capacity with the fastest native transfer rate, along with media delivering the lowest cost per gigabyte available.









APC: Defeating Downtime



American Power Conversion (APC) provides protection against some of the leading causes of downtime, including data loss, hardware damage, power problems and temperature fluctuations.

Check out the APC Smart-UPS: Power protection for servers and networks, with 2-yr warranty & \$150,000 Lifetime Equipment Protection Policy.

Don't be Scared - HP Makes NAS Simple

The HP StorageWorks NAS B2000 is an entry-level network-attached storage (NAS) solution that delivers quick and simple NAS storage with multi-protocol file support and storage management for workgroups, small businesses, and remote locations. This just-intime storage is simple to set up for multi-protocol environments. It's also easy to administer, requiring limited IT knowledge (not that you have limited IT knowledge). 512 MB Fack ... \$7,996







VERITAS Backup Exec* 9.1 for Windows Servers

Backup Basics

New! VERITAS Backup Exec 9.1 for Windows Servers

This next generation backup and restore solution provides comprehensive, cost effective protection for Microsoft Windows server environments. A web-based administration console boasts an intuitive graphical user interface with easy-to-use wizards to simplify installation and enhance manageability. High performance agents and options -- like the all new Desktop and Laptop option -- deliver flexibility to quickly protect desktop, laptop and server data.



- 30% lack a disaster recovery plan
- 64% admit flaws in their backup or disaster recovery plans
- 32% with formal plans don't test them regularly
- 64% don't regularly conduct external audits of storage systems

What is this new Desktop and Laptop Option?

It provides continuous disk-based protection and synchronization for users that are in the office or on the road. What a concept! Designed to automatically copy user data to existing network shares or storage, it enables quick recovery of data by the administrator or the user. For more info, go to www.softchoice.com/browser

Push-Button Desktop Disaster Recovery

Maxtor OneTouch External Hard Drives make it easy to store, recover and make backup copies of files. The drives have capacities up to 300GB, connect to FireWire or USB ports, and back up with the Maxtor



One Touch button, making a complete PC restore easy every time. So if the heavens deliver a catastrophic event, your system will be covered.

Mapdor'

CRAVE CHECK OUT MORE CHECK OUT INFO? PRICING, SPECS AND MORE AT WWW.SOFTCHOICE.COM/BROWSER

CA's Disaster Recovery Option

"CA Says": When disaster strikes, this is the most efficient way to recover a server. To learn more, go to www.softchoice.com/browser



Computer Associates*



7 Steps to Licensing Nirvana

Keeping pace with technology - and your competitors - starts with having the latest products, but it's more than just this. Maintaining your edge also means ensuring users take full advantage of the technology at their disposal. Microsoft's Software Assurance program is designed to help businesses succeed in these areas while making it easier to forecast annual software budgets more accurately than ever before. For all the details and more, go to www.softchoice.com/browser

Keep It Simple - And Keep Your People Happy

Simplify your budget by spreading payments annually, instead of incurring one upfront payment. Greater flexibility in managing technology expenditures lets you reduce initial costs and forecast annual software budget requirements up to three years in advance.

With the right to run new versions of licensed software as they become available, you can reduce the costs associated with acquiring new releases and avoid lengthy purchasing cycles, while reaping the benefits of the latest technology.

Tools included with Software Assurance make it easier to deploy new product versions, updates, and other content to all desktops and servers, at your own pace.

Software Assurance customers can also leverage the **Employee Purchase Program** to give employees significant discounts off of retail pricing on Microsoft's most popular productivity and consumer products.

Put Your Investment to Work

At a time when training budgets are being reduced to mere shadows of their former selves, the new Software Assurance program offers welcome relief by bringing classroom learning to the desktop.

Microsoft's **eLearning** delivers the student experience to regular users and IT professionals alike. Give your people access to the latest support resources and let them update their skills through interactive modules and tutorials on various applications.

Software Assurance (SA) also includes **training vouchers** for select course from Microsoft Certified Technical Education Centers.

Through the Home Use Program, your people can get a licensed copy of select Microsoft Office desktop programs so they can work from home, upgrade their skills or both.

Microsoft®

Software Assurance
for Volume Licensing



Did You Know?Home Use Rights

- Employees with access to the office from home average 1.75 more hours of work per week for "free" (Salary Savings: \$700-\$8000/yr per person*)
- Telecommuting employees average 14.5 additional work days per year (Average Salary Savings: \$5,240/yr*)
- Home User Rights software savings range from \$75-500 per person
- Total "value" of Home Use Rights: \$980-\$13,500* per year per employee
- * USD Source Forrester Research: I



Did You Know?Bonus Stuff

- Eligible customers can access
 Microsoft Windows source code for internal development and support
- The Windows Pre-Install Environment tool lets you build custom solutions to speed up deployment through automation
- Corporate Error Reporting monitors and reviews error information to control the deployment of fixes and resolutions





Ask Yourself: Before you Buy

- Which jobs benefit most?
- Who already uses handhelds?
- Any internal preferences?
- Will you designate a standard?
- How will you promote secure and effective usage?
- Have you planned backup or maintenance policies?

Charge, Organize and Protect ALL your Mobile Devices

The NEW APC TravelPower™ Case

This innovative carrying case is designed to both protect and power your notebook computer, mobile phone AND handheld - all at the same time! The integrated power system helps reduce weight and cord clutter since bulky transformer blocks and power adapters are no longer necessary.



PUMATECH'

Check out **Pumatech's Enterprise Intellisync** for centralized management.

Pumped Up PDAs for the Enterprise

At the most basic level, handheld devices offer an all-in-one replacement for virtually any personal information tool you can imagine. But they can be so much more! Wireless features can give your corridor warriors in-house instant messaging, data access, printing and data synchronization from anywhere within the office. Now just imagine what bar code readers, portable printers, digital cameras, portable presentation devices, and thousands of PDA applications could do for you in the field? But before you go changing the world, here's a look at the latest essentials for putting your PDA plans in motion. www.softchoice.com/browser



The Latest in PDA Memory Boosts

Kingston's Secure Digital (SD) memory cards are the latest generation offering high storage capacity, fast data transfer rates, great flexibility and excellent security in a card

the size of a stamp!



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HP Will Set You Free

Manage your critical business and personal information on the go with HP iPaq Pocket PCs. HP combines advanced Intel processors, massive memory speeds with the robust Microsoft Windows OS to deliver brilliant, full-color displays to provide information access with a single tap. Plus, HP developed the

PC expansion system with accessories such as digital cameras, bar-code scanners and global positioning systems to heighten your productivity. From slim and affordable to powerful and expandable — HP has the iPaq to mobilize you.







Security TipsPDAs & Portables

- Always use available password protection features
- Install an e-mail antivirus solution
- Strengthen security features with add-on software
- Synchronize your PDA regularly
- Don't forget backup for applications you don't sync





Cashing In On Document Management

When was the last time a dash to the printer made you think about saving money? The truth is effective document management can make a huge difference to your bottom line. And we're not just talking toner! Check out the host of new tools available, including multi-purpose devices, new workflow software, and the 'digital ink' of Tablet PCs. We've got technology that's changing the possibilities for document workflow, with even more online at www.softchoice.com/browser



Ask Yourself:Does Your Printer...

- Seem underutilized?
- How about over-utilized?
- Take up a lot of IT time?
- Often generate user complaints?
- Have problems with supplies?

Improve your Printer ROI with OKI

After applying operating factors like color coverage, toner expense, and parts life to calculate the total cost of printing, you'll find the OKI process is simple, smart, and efficient. OKI color printers sell on value, and the C5300n tops the charts. This printer can replace slower machines

- and stretch your budget! \$1,056





Save \$ The HP Way



HP Scanjet 8200 Series

Turn paper files into digital files with the HP Scanjet 8200 series. Scanning unattended with speeds up to 25 pages per minute at 4800-dpi optical resolution and 48-bit color along with multiple scanning attachments, the HP Scanjet 8200 series scanners are perfect for any small business/workgroup document management needs. The HP Scanjet 8200 series connects to your PC quickly and easily with USB or SCSI*.

(*available on the 8290)

HP Color LaserJet 4600

The HP Color LaserJet 4600 series printers with HP smart printing supplies are a reliable and affordable way to get high-quality color laser printing at the same speed as black and white. The efficient, simple design offers easy networking, management,

and maintenance features so the entire workgroup can benefit from in-house color printing that gets results. \$1,979





Did You Know? Print & Paper

- · Each person uses approximately 1 kg of paper per day
- Industry Analysts estimate that improving print management can reduce total IT costs up to 30%

CRAVE MORE INFO? CHECK OU.

Pump Up Your Workflow



to standardize and streamline time consuming, people-based activities and track their progress. By providing a platform for automating, refining and managing complex business processes, Lotus Workflow improves response time and reduces costs. Using Lotus Workflow, you can create workflow applications that perform these processes more guickly and consistently, with fewer bottlenecks. Applications can be easily updated to reflect changes or build increased efficiencies into the process. www.softchoice.com/browser

IBM Lotus® Workflow allows organizations





Tablets do it with Digital Ink

Graphics on the Go for Tablets

with others. \$78

Designed for Windows® XP Tablet PC Edition, Corel® Grafigo™2 uses pen-based business graphics software to help you create, annotate and collaborate by sketching on digital images and forms. Whether in a meeting or on the road, Corel® Grafigo™ 2 will enable you to capture ideas, annotate documents and communicate



HP's Tablet PC allows you to capitalize on the convenience and simplicity of paper and pen -- without all the paper. With the ability to recognize and translate your natural writing style, store and exchange information as 'digital ink', and do cool things like draw free-hand diagrams, this sleek device is providing compelling reasons to change the way we do things. Compaq TC1100 ... \$2,398 www.softchoice.com/browser

brother,

Brother **Delivers It All**

The Brother MFC-8820D is a 5-in-1 networkable flatbed laser multifunction center combining performance, connectivity, and reliability. It delivers ultra-sharp monochrome laser resolution at the fastest print speed in its class, up to 17ppm. With its PC fax capability you won't have to depend on paper documents, saving time and paper costs. \$651

Mastering Document Exchange

Scansoft's PaperPort Pro 9 Office is the most efficient way to organize, find and share paper, PDF, and digital documents. It combines the power of PDF creation, the convenience of network scanning and the efficiency of document manage-

ment, into a single, easy-to-use desktop application, saving both time and money. CD-RDM ... \$192

ScanSoft



You Do The Math **Multifunction Units**

Manage fewer consumables

Gratigo 2

Increase productivity

Reduce overhead costs by supporting fewer devices

Reduction in your total cost of ownership (TCO)

Fight Spam:

Become King of the Ring



Sometimes the best offence is a good defense. Nothing could be truer when you're going toe-to-toe with one of the biggest epidemics of the 21st century. According to several recent reports, there's more spam cruising around the internet these days than real e-mail. That means added security risks, lower employee productivity, enormous pressure on bandwidth and the very real threat of hostile workplace claims resulting from offensive content. But who says you have to let spam back you into the corner? With an arsenal of solutions to block unwelcome e-mail at the gateway, server and desktop, Softchoice can help you knock out spam for good. Check out our leading spam fighters, and then drill down online at www.softchoice.com/browser



Did You Know? Spam Stats

- 14 Billion spams are sent each day
- 90% is sent by 200 'king spammers'
- The average employee gets 13.3 spam messages a day
- The average employee spends 6.5 minutes per day dealing with spam
- More than 25 vendors deliver corporate spam-blocking products

EXPERIENCE OUR | \$1000 AND YOU COULD WIN | SEE PAGE 13 FOR DETAILS

Stop Spam at the Gateway

Trend Micro™ Spam Prevention Service



#1 Global market share leader in server-based virus protection, gateway and email server protection. Spam Prevention Service is a high-performance, anti-spam application designed to block non-productive and malicious spam at the gateway.

Spam Prevention Service employs patentpending heuristic technology that evaluates,
identifies and monitors existing and new
messages using multiple email
characteristics, providing highly accurate
spam capture rates with very low false
positives. Designed to integrate seamlessly
with Trend Micro's anti-virus and content
security solutions, Spam Prevention Service
analyzes messages in-memory to address
the performance and scalability
requirements of the global enterprise.
www.softchoice.com/browser



FEAT

Wanna Play Rough? Bring Out the Hardware!

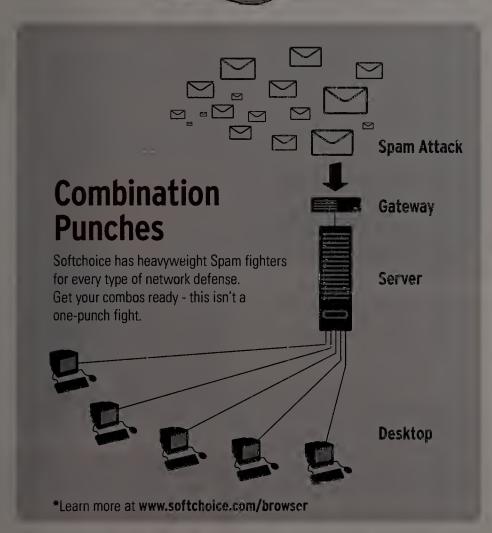
McAfee's SpamKiller Appliance
For pricing please go to www.softchoice.com/browser

Combine hardware and award winning software with integrated appliances offering configure-and-forget solutions to make anti-spam and anti-virus gateway defense instant, complete, and low-cost. Plugs easily into virtually any existing network and scans SMTP traffic for spam and malicious content and SMTP, HTTP, FTP, and POP3 traffic for viruses and other hostile code. Get rules-based anti-spam protection, with a catch-rate of up to 95%,

and a false positive rate of less than 0.05%, and unlike most solutions, you can install this at the gateway and e-mail server for more

complete protection.





Chop Spam from the Server with MailMarshal

A critic's favorite, Netlq MailMarshal is a fast and easy to use server-based scanning solution to help you control the type and subject matter of material entering or leaving an organization via email. For small businesses, it can be used to replace the existing mail server for up to 500 users.

Larger organizations can co-locate the product on the SMTP server, or on a dedicated machine.



Sybari Delivers Enterprise Anti-Spam!

Known for best of breed messaging security solutions, Sybari now delivers Advanced Spam Defense (ASD)! This robust, scalable anti-spam solution effectively reduces the impact of unsolicited e-mail traffic on your corporate networks. Specifically designed

real time detection service, ASD delivers accurate and proactive spam detection, customized to seamlessly support your needs and infrastructure.

as a stand-alone.



S<u>yberi</u>

11



Combat Spam Reclaim Your Inbox

- Protect your address. Avoid putting your e-mail address on Web or Usenet pages
- Use multiple e-mail addresses.
 Save one for filling out forms
- Read online registrations carefully. Be sure to "opt-out" at every chance

How do Spammers get your Email Address?

Chances are there's spyware on your systems that's "phoning home" information about your users whenever they're online. Find out what's lurking on your PCs - look for PestPatrol at www.softchoice.com/browser



Stronger Spam-fighters!

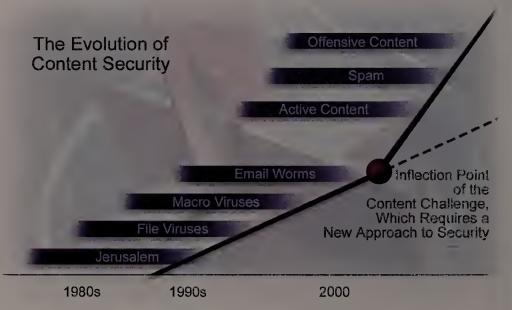
Another mark of a growing trend, anti-virus developer Sophos has recently acquired ActiveState, a leading anti-spam specialist.

12

Tackle Spam and More with CA's Content Security

According to CA, the à la carte approach to content security is in trouble. Although many point solutions exist, they pose challenges such as prioritization, budget limits, interoperability, integration, and managing policy deployment and enforcement across multiple, disconnected platforms. The increase in content threats, such as spam, confidentiality breaches, and offensive content, have made it clear that the solution is not just a security matter - both security and business needs must be addressed. There's been a shift in today's market needs and requirements that demand a new model to address today's content challenges. It is increasingly important to look at content security holistically - from an enterprise-wide perspective - addressing security concerns and policy enforcement across various entry points and protocols to respond to blended threats, spam, legal liability, and other content issues. CA's answer: eTrust™ Secure Content Management.

Learn more at www.softchoice.com/browser



eTrust™ Secure Content Management provides:

Spam Filtering - protects against unwanted and unsolicited email, increasing business productivity and network bandwidth.

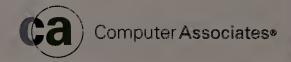
Email and Content Security - keyword identification safeguards against the transmission of proprietary or confidential information outside the organization.

Web Security - you set the policy-based web URL filtering

- Protects you from legal liability should an employee visit an inappropriate website and offend a coworker
- Employees won't waste time on non-productive web surfing
- · Policies preventing the downloading of MP3 and other large files

Malicious Code Defense - proactively protects users against a variety of active code attacks that can automatically execute when visiting a website or using email.

Antivirus Protection - dual antivirus engines provide "double protection" to help ensure users are always protected.





CA Completes the Puzzle

eTrust™ Secure Content Management is an integrated solution that builds on the strengths of existing antivirus technology while taking content. security to the next level. offering the best all-around protection for corporate networks for blended threats. spam, web security and everything in between.

Secure Content Management



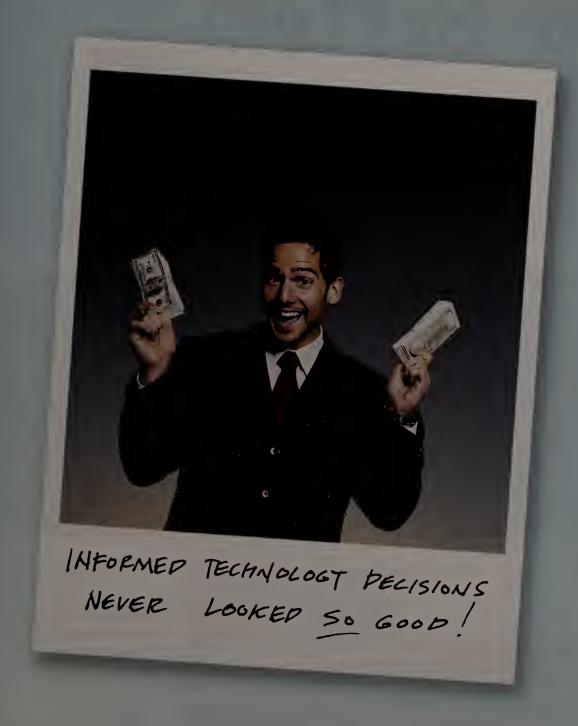


It's also adult sites, online music and pirated software.

Content filtering is a matter of both enterprise productivity and potential legal liability.



COULD WIN YOU \$1000



We think Live Quote is the coolest way to shop for technology that we've ever invented. By combining the latest Flash technology with live, expert advice, Softchoice Live Quote lets you follow along in your web browser as we create your customized quote—all in real time. That gives you the perfect opportunity to ask questions and ensure you're selecting the right technology and pricing. The end result? You get a cool way to perfect your software licensing and hardware selection, and we get to be proud.

To try Live Quote, and get your chance to win a \$1000 Softchoice shopping spree, call **1.877.967.3737** and ask for the Live Quote contest demo. Or visit **www.softchoice.com/browser** for details.



14

Get with The System

300 million users worldwide rely on Word, Excel, Outlook and PowerPoint to do their jobs. Now Microsoft has taken those oh-so-familiar Office productivity tools and extended their reach to provide a comprehensive, integrated system - the new Microsoft Office System. Designed to work alongside other Microsoft servers and programs, the Office System packs serious horse power when it comes to enhancing business intelligence, process management, personal productivity and collaboration.



Microsoft Office 2003 Editions

Basic

Standard

Student/Teacher

Small Business

Professional

Word	Excel	Outlook	PowerPoint	Publisher	Access	InfoPath
•	. •	•				
		•				
•	•	•	•			
						•

Purchase Microsoft® Office Edition 2003 licenses with 3 year Software Assurance (SA) and receive up to \$38,000 directly from Microsoft* that you can use towards your deployment. For more information, go to www.softchoice.com/browser



The New Office Professional **Editions Include:**

- Enhanced collaboration tools
- Information Rights Management (IRM) functionality that allows you to protect sensitive business information by giving you greater control over who can open, copy, print, or forward information.
- · Support for industry-standard Extensible Markup Language (XML).

















Process Management

Ask any project manager about the keys to success and they'll tell you: process, process, process. Good thing the Microsoft Enterprise Project Management (EPM) Solution provides the perfect answer for organizations requiring strong coordination and standardization between projects and project managers, centralized resource management, or higher-level reporting about projects and resources.

The EPM Solution consists of Microsoft Office Project
Server 2003, which is the platform that supports project
and resource management and collaboration capabilities.
Users connect to Project Server through Microsoft Office
Project Professional and Microsoft Office Project Web
Access to save, retrieve, and interact with the Project Server
data. The EPM solution allows project managers to schedule
projects, assign team members from a central resource pool
to project tasks, and save their information centrally to so
it can be shared with others.

Personal Productivity

Microsoft Office Outlook 2003 contains the tools that will have a great impact on personal and team productivity. Key enhancements include a new Reading Pane that displays twice as much content as before. Outlook 2003 has enhanced Rules and Alerts to help you organize incoming e-mail messages and alert you to when tasks are due or meetings are about to begin. It also has the ability to save the results of commonly used searches as Search Folders instead of having to re-run common searches each time you need them.

A look at personal productivity tools wouldn't be complete without mentioning **Microsoft OneNote 2003**, the note taking program that gives you one place to capture multiple forms of information, including typed and handwritten notes, hand-drawn diagrams, audio recordings, photos and pictures from the Web. **OneNote 2003** then helps you organize and reuse that information the way you prefer, so you can better manage the information overload you face each day.

They're Better Together - Built with other Microsoft technologies in mind, the Microsoft Office System allows you to integrate desktop and server technology to provide business users with better access to information, improved collaboration and increased productivity. For all the details on Microsoft's latest releases go to **www.softchoice.com/browser**

Servers

Project Server 2003, SharePoint Portal Server 2003, Live Communications Server 2003.

Programs

FrontPage 2003, OneNote 2003, Publisher 2003, Project 2003, Visio 2003, InfoPath 2003.

Solutions

Office Systems
Solutions Directory,
Office Solutions
Accelerators,
Enterprise Project
Management
Solution

Services

Live Meeting

Enabling Technologies

Windows Sharepoint Services, Windows Server 2003, Exchange Server 2003.

Effective Teaming

For many organizations, improving reaction time is all about effective communication and collaboration. To address this need, **Microsoft Office SharePoint Portal Server 2003** allows you to develop an intelligent portal that seamlessly connects users, teams, and knowledge so that people can take advantage of relevant information across business processes.

SharePoint Portal Server 2003 provides a single point of access to multiple systems such as Microsoft Office System programs, business intelligence and project management systems. Users can extract and reuse timely and relevant information from systems and reports, and quickly locate and access documents, projects, and best practices across the company.

Business Information

If you're looking to improve the way you share, reuse, and repurpose information in your organization, Microsoft has the answer. **Microsoft Office InfoPath 2003** is a new program in the Microsoft Office System that can help you gather information flexibly and efficiently in rich, dynamic forms.

The information collected can be integrated with a broad range of business processes because InfoPath supports any customer-defined Extensible Markup Language (XML) schema and integrates with Web services. InfoPath 2003 also integrates with Microsoft Windows® SharePoint™ to further enhance team collaboration.

To learn more, visit www.softchoice.com/browser

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New Technology:

Good Things Come In Shrink-Wrap

In the world of IT, there's nothing more exciting than a new addition to the family. Check out these latest and greatest arrivals with pricing, specifications and more at www.softchoice.com/browser

Macromedia MX 2004. Run with it.

Streamline web development with the integrated tool set that includes, Dreamweaver, Flash, Fireworks and FreeHand.



- Get professional-level functionality and control for every aspect of web development with a complete suite of industry-leading web tools
- Take advantage of a consistent user interface to make using multiple applications easier
- Streamline your design and development workflow with seamless integration across applications

Macromedia Studio MX 2004 includes:

- Dreamweaver MX 2004
- Flash MX 2004
- Fireworks MX 2004
- Freehand MX
- Coldfusion MX 6.1 Developer Edition (Windows only)





TO PLACE YOUR ORDER CALL 1.877.967.3737

The New Observer Suite It's Not Your Dad's Protocol Analyzer

The latest in complete network monitoring from Network Instruments.

Get control over your network. Observer Suite works with every part of your local and remote network (LAN, 802.11 a/b/g, Gigabit, WAN) with features that include superior packet capture and decode, real-time statistics, over 450 Expert Events, robust trending and reporting and custom-izable triggers and alarms so you're the first to know about network problems. Observer Suite even offers Application Analysis and Advanced Multi-Probes for the next level of remote monitoring. Now try doing all that with your Dad's protocol analyzer.







Collaboration Solutions:

Get On The Same Page

Businesses today often incorporate a widely dispersed network of co-workers, suppliers, partners and customers. With this far flung web of associations comes the challenge of working together effectively. Good thing the latest electronic connection tools are so effective at bringing people together. As the following solutions show, when it comes to productivity, distance should be the last thing on your mind. For more info and pricing, go to www.softchoice.com/browser

IBM Lotus® Instant Messaging and Web Conferencing (Sametime®)

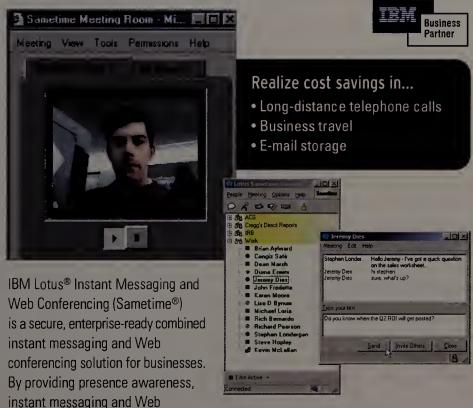
WRQ Makes Host-Access Secure

WRQ Reflection® for the Web is terminal-emulation software that gives browser users inside and outside the firewall secure access to applications on IBM, HP, UNIX, and OpenVMS systems. With Reflection's advanced migration, administration, and automation capabilities, you can also manage your evolving desktop environment-while cutting total cost of ownership. Enhanced security ensures safe access to host information for all users-local and remote. Administrators have complete control

OWRO

over which emulation sessions a user or group can access.





conferencing, Lotus Instant Messaging and Web Conferencing helps speed communication, reduce travel expenses and produce results. With Lotus Instant Messaging and Web Conferencing, your employees, customers, partners, and suppliers can immediately and easily interact with one another in realtime.



Sagittarius Nov. 22-Dec. 21



Despite your sleek new wireless keyboard and mouse, scores of programmable shortcut keys, and the comfort of ergonomic design, coworkers still refuse to address you by your proper title, "Starship Captain, First Class".

Capricorn





Despite the underliable creative ingenuity you've displayed in making RJ45 cabling a central part of your office decor motif, one fact remains: Wireless Connectivity is convenient, inexpensive, and simple to implement. Capricorn, your heart is in the right place but form will never outstrip function.

Aquarius

Jan. 20-Feb. 18



With Venus' ascension into the house of Mars, you'll surprise thousands and flout cross-species boundaries when you fall head-over-wheels in love with the sleek design of Microsoft's new Wireless IntelliMouse Explorer.

Pisces

Feb. 19-Mar. 20





Wireless connectivity and unfettered mobility is brought to the masses through Microsoft's line of Wireless Routers and Access Points. Your Pisceian enthusiasm is understandable, but you should resist urges to take your laptop into the pool with you.

High Tech Horoscopes

Aries Mar. 21-Apr. 19







The shock and confusion of finding out that wrist cramps has nothing to do with either fish or the London Chunnel is only intensified when you realize the whole debacle could have been averted by an ergonomically designed Microsoft Natural Keyboard.

Taurus

Apr. 20-May 20



Taurus, in keeping with your sometimes bullheaded exterior, you'll no doubt find yourself drawn to Microsoft's Leather-bound



Mouse. Your workplace comfort has reached previously unattainable heights - leather on a mouse. Trust me, the stars didn't see that one coming either.

Gemini May 21-Jun. 21



For legal reasons, the stars can't guarantee you enhanced productivity, but they have a sneaking suspicion that

a Microsoft Wireless Notebook Adapter will get you closer to your lifelong dream of sending emails while "using the facilities".



Cancer June 22-July 22





The sheer variety and 6 month battery life of Microsoft's new line of wireless mice are the key motivators behind your decision to have 8 extra hands surgically attached.

Leo

Jul. 23-Aug. 22



Wrist cramps will prevent you from throwing caution to the wind this week, due to your poorly designed keyboard. If only you'd had an ergonomically designed keyboard to support your wrists, and eliminated excess keystrokes with customizable keys. Do the stars need to spell it out for you here? You need the Wireless Desktop Elite from Microsoft!



Virgo

Aug. 23-Sep. 22



Expect to feel betrayed by television when you find out that your purchase of Microsoft's Trackball Explorer does not in fact guarantee

you employment at missile command. Your fury is moderately allayed, however, by the knowledge that you own the most powerful. intuitive, and sleek input device on the market today.



Libra

Sep. 23-Oct. 23



Inter-office gang warfare is narrowly averted when you're made privy to the fact that Microsoft's new line of keyboards and mice are in fact available in a veritable cornucopia of colors.

Scorpio

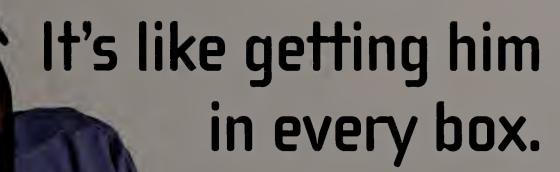
Oct. 24-Nov. 21



You're delighted to find that Microsoft's new Broadband Networking 10/100 Ethernet Wired Base Station make setting up your small office so easy a trained chimp could do it. Not as delighted: your trained chimp, whose previous responsibilities of eating bananas and doing handstands have now been expanded.







What's more important than security? Not much, unless it's the high-performance features that give you broader control over your systems. If those seem like opposing objectives, it's time to check out OmniView SE Plus Series KVM Switches from Belkin. With enhanced security and innovative technology, SE Plus lets you switch between as many as 16 PS/2 and USB servers from one PS/2 console—without compromising network security. It keeps hackers away from your critical data by directly routing input and output signals to each computer, preventing unintended information exchange. That's a secure feeling. With our pending EAL 4 rating, it's like knowing no one's going to drive out of the lot in your car while that security quard's on duty.

So go ahead, connect your servers. The tall guy's watching.

OmniView SE Plus Series KVM Switches with Enhanced Security



Belkin Corporation 310.898.1100 ext. 2503 Compton • CA • USA

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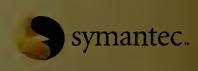


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Continued from page 24

making it easier and quicker than ever to create or copy music discs, photos, data backups and now DVDs. This all-in-one solution includes applications to edit audio and video; mix multiple audio tracks like professionals; watch VCD, SVCD and DVD movies; listen to music; design covers; and optimize your drive's performance.

Radio YourWay >

MANUFACTURER: PoGo Products Inc., Brea, Calif.

WEB SITE: www.pogoproducts.com

PRICE: \$150 or \$200, depending on memory capacity For decades, we've been able to set up video recorders to turn on at preset times and record programs for us automatically. But until now, there has been no product that does the same for radio, even though it's a much simpler process. Radio YourWay is a small MP3 player containing an AM/FM radio with a programmable solidstate recorder. The unit holds up to 4.5 hours of com-



pressed audio in its 32MB of internal memory and up to 36 hours with add-in Secure Digital memory cards. With the included USB cable, you can transfer files to and from your PC and store MP3 files to Radio YourWay. Did I mention that it also has a voice recorder?

SA100 Mini-MP3

MANUFACTURER: Auvi Technologies, St. Charles, Mo.

WEB SITE: www.auviworld.com

PRICE: Starts at \$50

It looks like a USB thumb drive, but it also plays MP3 audio. The SA100 is about the size of a thumb, 3.5 in. by 1.1 in. and just 0.9 in. thick. Available in 64MB, 128MB and 256MB versions, the portable digital audio device runs on one AAA battery for up to six hours of music playback. It includes two LED indicators and an equalizer that can be preset to five settings. Its firmware is upgradable via a USB port.

Pictures and Movies

Exilim EX-Z4U ×

MANUFACTURER: Casio Inc., Dover, N.J.

WEB SITE: http://exilim.casio.com

PRICE: Under \$400

Casio's Exilim EX-Z4U is one of the smallest digital cameras on the market, but it's loaded with features. The size of a credit card and under 1 in. thick,

> with 4-megapixel resolution, this camera fits into a docking station so that, sensibly, the LED viewscreen, not the lens, faces you. The EX-Z4U has a 3X zoom lens and sells for under \$400, with dock. Best of all, there's just a 0.1-sec. lag time after you press the shutter until it takes the picture - far faster than most digital cameras.

Photosmart 945 ×

MANUFACTURER: Hewlett-Packard Co.

WEB SITE: www.shopping.hp.com

PRICE: \$550

The Photosmart 945 is HP's biggest and best digital camera to date. offering 5.3-megapixel resolution with an 8X optical zoom lens. The

optional camera dock allows easy sharing of photos to computer or printers and recharges the batteries.



MANUFACTURER: Hewlett-Packard WEB SITE: www.shopping.hp.com

PRICE: \$399 When it's time to edit your vacation movies and put them on DVD, you might want to use

Hewlett-Packard's new DVD Movie Writer DC3000. This external DVD writer has a built-in analog capture card that lets you easily transfer home videos directly from tape to a digital format. The unit comes with a full suite of software to enable video editing along with photo, music and data applications, and it lets you write and read CD-R, CD-RW and DVD+R/+RW discs.



none Fun

MANUFACTURER: RoadWired, Henrietta, N.Y. WEB SITE: www.roadwired.com

PRICE: Starts at \$20

How to carry that slick new cell phone? Cases are so last year. What you want is Rivet, a line of interchangeable fasteners developed in Australia. The modular system can be used as a belt clip or a dashboard mount or attached to a shoulder strap. All components are machined out of aircraft aluminum and stainless steel. You attach a steel pin to your phone or camera with high-strength adhesive, then clip it into the Rivet e-Clip's spring-loaded top entry gate. To release, push a button. The Micro Clip - intended to be as much fashion accessory as carrying solution - is a tiny, bullet-shaped capsule with a sliding cover that accepts the same pins and attaches to a chain.

Treo 600 +

MANUFACTURER: Handspring Inc.,

Mountain View, Calif.

WEB SITE: www.handspring.com

PRICE: \$500

With its sleek styling, decent thumb keyboard, well-thought-out dialing software, built-in digital camera, improved Web browser and bright screen, Handspring's newest smart phone/PDA combo is likely to be the No. 1 item on many people's lists this year. The Treo 600 uses the latest version of Palm OS. And though only slightly smaller than its predecessor, it's easier to store.

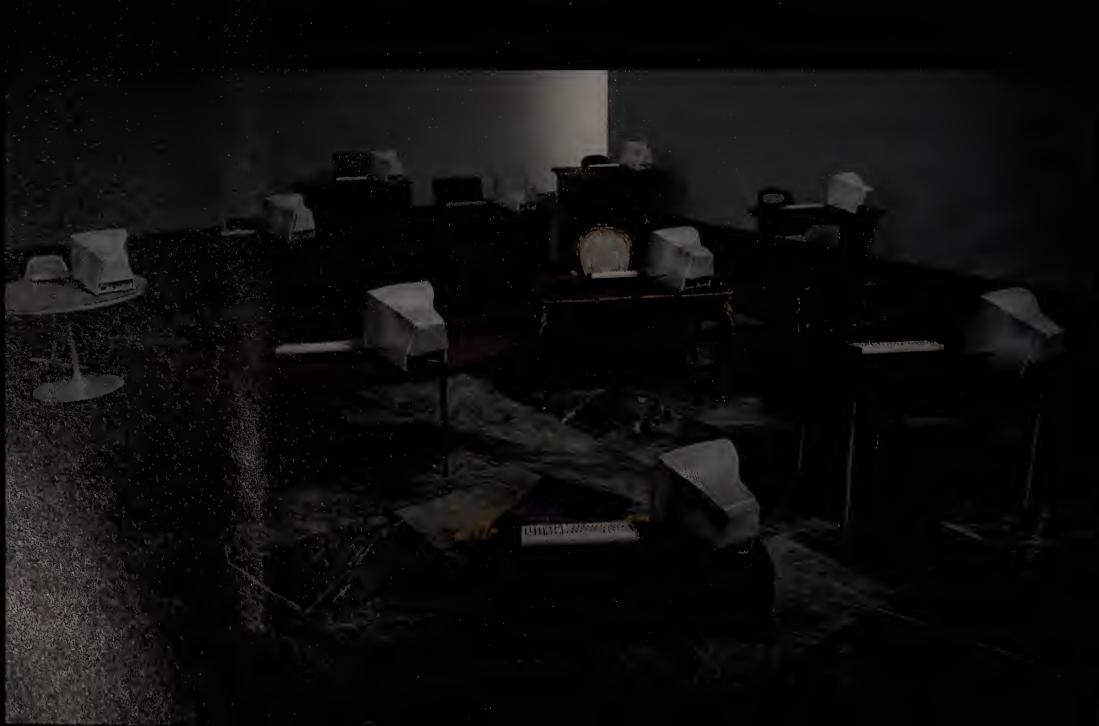
Continued on page 28



Not printing reports as usual. Not printing forms as usual.

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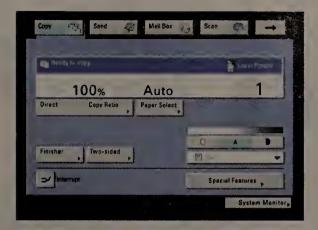




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Continued from page 25

MANUFACTURER: Rain Design Inc., San Francisco

WEB SITE: www.igo4mac.com

PRICE: \$500 (sitting), \$600 (standing)

If you're a Macintosh aficionado, you're likely superconscious about style issues. Here's the iGo, a desk that complements the futuristic styling of your iMac. Rain Design has created this avant-garde work environment in two heights - one for use while you're sitting, and another for standing.

KidzMouse ←

MANUFACTURER: KidzMouse Inc., San Mateo, Calif.

WEB SITE: www.kidzmouse.com **PRICE:** \$21 (ball), \$26 (optical)

KidzMouse makes a line of child-friendly mice that come in colorful character designs, including some licensed from Disney, Nickelodeon and Sesame Street. Designed by a grandmother for her 4-year-old granddaughter, this

mouse is half the size of a conventional computer mouse, with a rounded shape that fits growing hands. Instead of the traditional mouse buttons, the KidzMouse has a squeezable "head" that covers the front third of the device. If you're a grown-up with small hands, you might find this a comfortable alternative to a normal mouse.

Mirra Chair &

MANUFACTURER: Herman Miller Inc., Zeeland, Mich.

WEB SITE: www.hermanmiller.com

You need a good chair for working at your computer. Your aching back will thank you for it. But you can't afford to remortgage the house to pay for it. Take a look at (and a seat in) the new, awardwinning Mirra from Herman Miller. The chair is designed in Germany to be ergonomically adaptable and provide support where you need it.





Entertainment Communicator >

MANUFACTURER: Sony Electronics e-Solution Co.,

Woodcliff Lake, N.J.

WEB SITE: www.sonystyle.com

PRICE: \$700

The UX50 Personal Entertainment Communicator is a handheld device with afterburners. It features a 480-by-320-pixel landscape-mode display in a clamshell case, built-in Wi-Fi and Bluetooth, a built-in VGA digital camera and the Palm OS 5 operating system. What else? An MP3 player, a voice recorder, a video recorder and Memory Stick Pro cards for add-on storage. The display swivels and folds down, and you can use it in touch-screen mode. The wide-screen design provides more room for the keyboard.



FlashFolio + MANUFACTURER: RoadWired WEB SITE: www.roadwired.com PRICE: \$30; \$60 in leather Removable storage devices used to be a nuisance because they were so big. Now they're a nuisance Continued on page 32

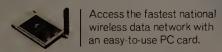


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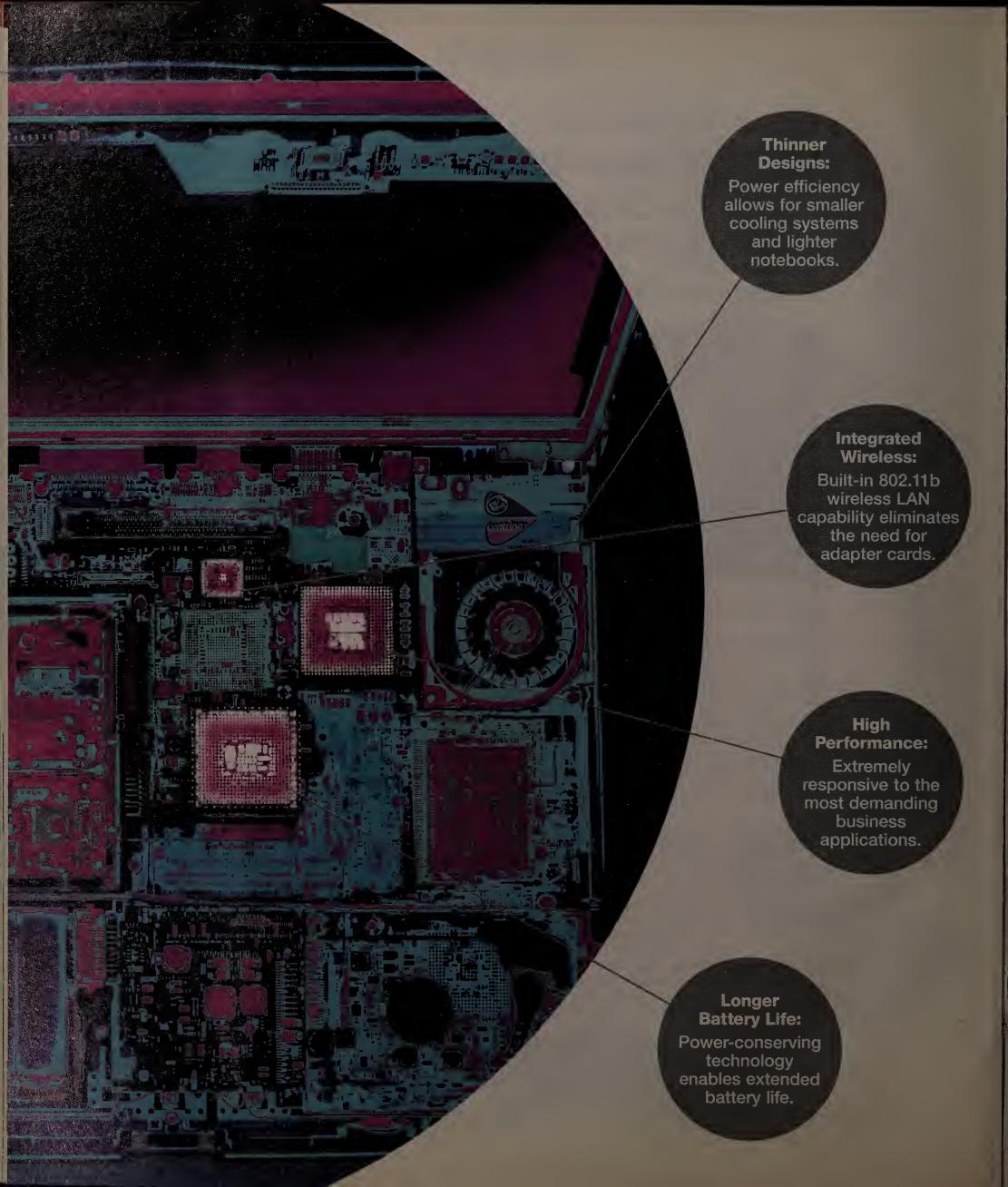


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Continued from page 28

because they're so small. With new formats proliferating, thumbnail-size cards offering up to 1GB of storage and hard drives hardly bigger than postage stamps, it's all too easy to lose these devices or take the wrong one with you. RoadWired's FlashFolio comes to the rescue. It has 20 pocketed compartments (all with Velcro fasteners), plus an index card. This case uses Lucent Technologies Inc.'s patented polymer Corrosion Intercept technology, which reacts with and neutralizes corrosive gases that can tarnish metals and degrade or damage electronics.

TECHNOLOGY

GME224M32 Wireless Mini Mouse →

MANUFACTURER: IOgear Inc., Irvine, Calif.

WEB SITE: www.iogear.com

PRICE: \$50

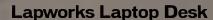
You can slim down your travel kit a little with lOgear's new wireless optical minimouse, a peripheral that stores 32MB of data in its built-in flash memory. With 800-dpi resolution, this mouse requires less wrist movement than most, an advantage for travelers working on airline tray tables. A retractable cable, an on/off switch and a carrying case simplify storage and eliminate tangled wires



MANUFACTURER: Kensington Technology Group, San Mateo, Calif. WEB SITE: www.kensington.com

PRICE: \$20

You know what it's like on those full-to-capacity cross-country flights when the plane's air conditioning isn't up to the job. Now you can do something about it. Kensington's FlyFan will stir up some coolth for you. It's a small personal fan that plugs into your laptop's USB port. List price is \$20, but you can often find it under \$10.



MANUFACTURER: Lapworks Inc., Rancho Cucamonga, Calif.

WEB SITE: www.lapworksinc.com

PRICE: \$50

Sometimes, like when you're in an airport terminal, you'd like just a little bit of hard surface to put your laptop on. Here's a portable unit that fits that bill neatly, with an ergonomic "desk" that sets at several angles, an add-on mouse pad and a swivel base. And when your flight is called, you can fold it up quickly and stow it in your briefcase.

Palm Tungsten T3 (shown with Accessory Keyboard) +

MANUFACTURER: Palm Inc., Milpitas, Calif.

WEB SITE: www.palmone.com

PRICE: \$400

The best-ever Palm handheld features a brilliant high-resolution display expandable to 480 by 320 pixels and viewable in landscape or portrait mode. The T3 has a built-in voice recorder and MP3 player, plus a photo and video





Cyber Tool 41

MANUFACTURER: Victorinox

WEB SITE: http://www.swissarmy.com/webstore/moreinfo.cfm? product_id=1589&category=39

PRICE: \$95

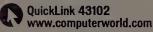
From Victorinox, maker of the Swiss Army Knife, the \$95 Cyber Tool 41 is a 41-function pocket knife that includes a DIP switch setter and a set of Torx and PosiDrive bits along with the more traditional scissors, pliers, corkscrew and can opener.

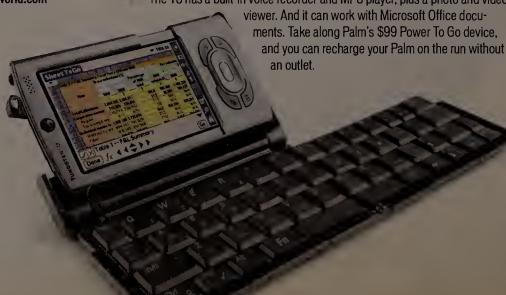
More Cool Stuff

To see a list of the top technology and management books of 2003, go to:

QuickLink 42969

Reviews of more technology can be found at our Web site:





Protection

Armor 3600 x

MANUFACTURER: Otter Products LLC,

Fort Collins, Colo.

WEB SITE: www.otterbox.com

PRICE: \$100

If you're going to be carrying your handheld device in swamps, war zones or other places that aren't friendly to consumer elec-

tronic devices, consider the Armor 3600 ruggedized, waterproof case. This accessory fits most handhelds, allowing full use of the touch screen via a recessed, clear plastic membrane. It also features waterproof cable connections for external accessories, an outside stylus holder and an adjustable hand strap that's easy to use with gloves on.

CarChip

MANUFACTURER: Davis Instruments Corp., Hayward, Calif. WEB SITE: www.davisnet.com
PRICE: Starts at \$130

This may be the ultimate Big Brother device with which to torment your teenager. CarChip is a device the size of a 9-volt battery that plugs into your (1996 or later) car's diagnostic port, which records data whenever the car is started. CarChip automatically records trip details, including speed, start and stop times, and distance traveled. You can unplug CarChip and upload its information to a PC. In addition, CarChip can create an accident log, which documents the 20 seconds before an accident. • 42520

Kay is a Computerworld contributing writer in Worcester, Mass. You can reach him at russkay@charter.net.



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ViMa

DEFINITION

WiMax is the popular name of the 802.16 wireless metropolitan-area network standard that's currently being developed. WiMax, which will have a range of up to 31 miles, is primarily aimed at making broadband network access widely available without the expense of stringing wires (as in cable-access broadband) or the distance limitations of Digital Subscriber Line.

BY RUSSELL KAY

INCE THE TURN of the millennium, wireless networks have proliferated. Wi-Fi, the popular term for the capabilities created by a group of standards from the Institute of Electrical and Electronics Engineers Inc., has freed us to move around our offices and many public places with our laptops and handhelds, yet still have instant, unencumbered access to our companies' intranets and the Internet.

WiMax (Worldwide Interoperability for Microwave Access) is the next step on the road to a wireless world, extending broadband wireless access to new locations and over longer distances, as well as significantly reducing the cost of bringing broadband to new areas.

Among the promises of WiMax is that it could offer the solution to what's sometimes called the "lastmile" problem, referring to the expense and time needed to connect individual homes and offices to trunk lines for communications. WiMax promises a wireless access range of up to 31 miles, compared with Wi-Fi's 300 feet and Bluetooth's 30 feet.

802.What?

The popularity of wireless networking has grown very quickly because of effective standardization. Wi-Fi encompasses a family of specifications within the IEEE 802.11 standard [QuickLink 279221. These include 802.11b (the most popular, at llMbit/sec., with a

typical range of up to 300 feet), 802.11a (54Mbit/sec., but at a shorter range than 802.11b) and 802.11g (combining the speed of "a" with the range of "b").

WiMax is the new shorthand term for IEEE Standard 802.16, also known as "Air Interface for Fixed Broadband Wireless Access Systems." It's been designed from the beginning to be compatible with European standards something that didn't happen with 802.11a and delayed its adoption.

The nonprofit WiMax Forum was established in 2001 by Nokia Corp., En-

semble Communications Inc. and the Orthogonal Frequency Division Multiplexing Forum.

The WiMax Forum aims to support wireless metropolitanarea networking products based on 802.16, much as the

Wi-Fi Alliance has done for wireless LANs and 802.11.

The organization has most recently been working on standards certification and interoperability testing. In 2003, Intel Corp. became a major supporter of the WiMax Forum.

The initial version of the 802.16 standard, approved by the New York-based IEEE in 2002, operates in the 10-to-66-GHz frequency band and requires lineof-sight towers.

The 802.16a extension, ratified in March 2003, doesn't require line-ofsight transmission and allows use of lower frequencies (2 to 11 GHz), many of which are unregulated. It boasts a 31-mile range and 70Mbit/sec. data transfer rates that can support thousands of users.

Vendors have held interoperability forums, and the first commercial products are expected to appear on the market next year.

Additional 802.16 standards are in the works; here's what they'll cover:

802.16b — Quality of service

802.16c — Interoperability, with protocols and test-suite structures

802.16d — Fixing things not covered by 802.11c, which is the standard for developing access points

802.16e — Support for mobile as well as fixed broadband

Technology Considerations

The overall concept of metropolitanarea wireless networking, as envisioned with 802.16, begins with what's called fixed wireless. Here, a backbone of base stations is connected to a public network, and each base station supports hundreds of fixed subscriber stations, which can be both public Wi-Fi "hot spots" and firewalled enterprise networks. The base stations would use the Media Access Control layer defined in the standard — a common interface that makes the networks interoperable — and would allocate uplink and downlink bandwidth to subscribers according to their needs, on an essentially real-time basis.

Later in the development cycle, with 802.16e, WiMax is expected to support mobile wireless technology — that is, wireless transmissions directly to mobile end users. This will be similar in function to the General Packet Radio Service and the "one times" radio transmission technology (1xRTT) offered by phone companies.

Intel has now promised WiMax versions of its Centrino chip set for 2004, whereas Nokia says it will have battery and other technical issues solved in time to launch a WiMax cell phone in 2005.

Following on the heels of WiMax is

U.S. AND EUROPEAN WIRELESS NETWORKING STANDARDS

U.S.	NETWORK TYPE	EUROPE
IEEE 802.20 (proposed)	WAN	3GPP, EDGE
IEEE 802.16 (WiMax)	MAN	ETSI HIPERMAN. HIPERACCESS
IEEE 802.11 (Wi-Fi)	LAN	ETSI HIPERLAN
IEEE 802.15 (Bluetooth)	Pulv	ETSI HIPERPAN

SOURCE WIMAX FORUM

GLOSSARY

ETSI: European Telecommunications Standards Institute

HIPERLAN: High Performance Radio LAN

HIPERMAN: High Performance Radio Metropolitan-Area Network

HIPERPAN: High Performance Radio Personal-Area Network

HIPERACCESS: High Performance Radio Access

3GPP: 3rd Generation Partnership Project

EDGE: Enhanced data rates for **GSM** evolution

another standard, IEEE 802.20, which addresses wide-area wireless networks and is currently under development; no products supporting 802.20 are expected before 2006.

The Promise

The Washington-based Cellular Telecommunications & Internet Association reports that in 2000, there were upwards of 109 million cellular subscribers — compared with 58 million residential wired telephone lines (according to U.S. government data). If we consider that part of the telecommunications industry to be an indicator of what's to come in data networking, it's likely that in a few years, much of the Internet's traffic will be carried over the air via WiMax and its descendants, not over copper wires or optical fiber.

Visant Strategies Inc., a market research firm in Kings Park, N.Y., predicts that WiMax product sales will reach \$1 billion by 2008. According to Oyster Bay, N.Y.-based ABI Research, the market for long-range wireless products based on 802.16 and the forthcoming 802.20 standard will reach \$1.5 billion by 2008. • 42899

Kay is a Computerworld contributing writer. You can reach him at russkay@charter.net.

LEARN MORE ONLINE

For a list of online resources related to WiMax,

QuickLink 43072 www.computerworld.com

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Bad Policy Makes For Weak Passwords

Easily guessed passwords and sloppy security practices leave end-user accounts vulnerable to attackers in more ways than one. By Vince Tuesday

T'S UNPROFESSIONAL to break down and sob during a meeting, but I came pretty close a few times this week as I finally began to understand the details of the IT security systems and processes my new company uses to protect itself.

I'm fairly new here, so there's a lot I still don't know. But it **SECURITY** wasn't long before it became clear to me **MANAGER'S** that things are deeply wrong. It seems like every week, I uncover layer upon layer of seemingly minor issues that undermine a lot of what we do.

This week, it was passwords. The main problem is that they're easily guessed and frequently shared. My security team continually tells users that they must pick strong passwords and not share them. But we've been unclear with users about what counts as a strong password because we've been unsure about it ourselves.

Most computer systems store a one-way encrypted password in a database. When you attempt to log in, they encrypt what you type and compare that to the stored value. If both match, the system logs

If an attacker can connect to a server, he can attempt to guess the password by just trying various words; password, secret and jamesbond are favorites. But if an attacker can steal the encrypted list or password file, he can launch a more insidious attack. Instead of connecting to the server a slow and sometimes detectable process — he can take a dictionary of common words and encrypt them using the same process as the server and store each in a lookup table.

If an attacker wanted to break into more than one operating system, he'd need one table for Windows servers and three for the three main kinds

> of Unix. Then, once he'd stolen the encrypted passwords, he could just look in the table and see which word each matched.

A hacker launching an online attack is likely to make a few hundred guesses before he's spotted or moves on. But an off-line attack can cover hundreds of thousands of passwords every second.

The problem is that operating systems' core method of storing passwords hasn't changed for many years, but the speed of computers has increased thousands of times.

My security team continually tells users that they must pick strong passwords and not share them. But we've been unclear about what counts as a strong password.

It has reached the point where if your encrypted Windows password file is stolen, even a low-end hacker has enough computing power to break it in a few days.

It would be nice to be able to make sure that nobody can access our password file and to teach our users not to pick the top 100 risky passwords that a hacker might use in an online attack.

Dire Situation

My predecessors spent many thousands of dollars on cracking software and hardware to test the strength of passwords, and they found that about 15% of the passwords used in my company are weak. This is actually lower than the industry average, which shows just how dire the situation is in the financial services industry.

But had a lot of work been done to find and educate the users with bad passwords? No. Some grand schemes had been discussed about replacing passwords or improving operating systems so that only good passwords could be chosen, but nothing was ever delivered.

The result: In addition to allowing those bad passwords to be in use, my department was also running a computer that had a duplicate, unencrypted list of all of those bad user accounts and passwords. If someone had stolen that list, we'd have done the hard work for them!

So this week, I began asking team members to call groups of users with weak passwords and discuss better password choices. It turns out that most of the users we've called so far weren't using those accounts and didn't know they had them. At least we can now

We may have done only half the job with passwords, but in

other areas, we've done a job and a half. For example, when my team and I dispose of a computer, we use a utility to wipe the disk clean. We overwrite every part of the disk with a string of zeros. But the tool we use is slow and must run from a floppy disk.

For some reason, my predecessor forced the IT support teams to use a different floppy for each target machine, write a log of the actions back to each floppy and then bring them to the security team to be checked.

This works fine with one or two machines, but after we conducted a disaster recovery test where hundreds of machines had to be wiped and returned to the disaster recovery services vendor, we found that creating and then checking the log data on all of those floppies was a huge waste of time. Nonetheless, it took a lot of convincing for everyone to follow a new process based on more trust in the support team.

I knew I was in a new company when members of the support team finally admitted that they didn't like producing the logs and had just been giving the security staff the same floppies after each test with ancient log entries on them. My staffers had never caught them because they weren't checking. Everyone was just going through the motions.

It's nice to find a process that takes less time for the support teams and less time for my group and actually ends up with disks being wiped clean.

I'm sure these won't be the last problems I encounter, but if I can ensure that we have good passwords and establish realistic policies that get followed, then I think we can improve the level of protection around here.

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "Vince Tuesday," whose name and employer have been disguised for obvious reasons. Contact him at vince. tuesday@hushmail.com, or join the discussion in our forum: QuickLink a1590 To find a complete archive of our computerworld.com/secjournal

SECURITY LOG

Security Bookshelf

Firewalls and Internet Security: Repelling the Wily Hacker, Second Edition, by William R. Cheswick, Steven M. Bellovin and Aviel D. Rubin; Addison-Wesley. 2003.

The book isn't about firewalls so much as it is about the authors' philosophy of computer security and the distillation of their many years of hard-earned experience. Every page shines with nuggets of information, and every bit of advice is backed up with references and examples.

My only complaint is that the authors don't cover the importance of compromise enough. They clearly describe a vision of the right way to run Internet systems, but not everyone can do everything the right way. Sometimes good enough has to be enough. That said, without the knowledge that there is a right way and that this team has reached that nirvana, there would be no hope to keep us mere mortals moving in the right direction.

- Vince Tuesday

LAN Access-Policy Appliance Debuts

InfoExpress Inc. announced CyberGatekeeper LAN, an access-policy enforcement appliance for LAN-attached users. The appliance enforces policies created with the Mountain View, Calif.-based vendor's CyberGatekeeper Policy Manager software. It works with LAN switches to segment users from the corporate LAN, checking workstations for correct configurations and up-to-date patches before allowing access

CyberGatekeeper LAN can also automatically provide needed updates to users whose machines are out of date. The offering is expected to be available by late January. Pricing starts at \$10,000.

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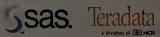
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BRIEFS

Toshiba Boosts Tablet PC's Power

Toshiba Corp. in Tokyo has introduced a new tablet PC with beefed up processing power. The Portege M200/205 features an Intel Pentium M chip that operates at 1.5 GHz. The M200/205 also features an advanced video card from Nvidia Corp., the GeForce FX Go 5200, and a built-in Intel Centrino chip set. Pricing starts at \$2,499.

MCI Enhances VPN Service Portfolio

WorldCom Inc., operating under the name MCI, has announced that its new IP VPN Broadband service is available in 55 cities. With the service in an Internet DSL Office scenario, users would pay \$100 to install a Cisco VPN 831 router, plus about \$200 per month for the DSL connection and management of the router. At the user's hub location, the fee would be \$1,000 for a concentrator and \$1,400 per month for T1 connectivity and management services.

WebLogic Platform Ported to Sun OS

BEA Systems Inc. in San Jose will port its WebLogic Platform 8.1 to Sun Microsystems Inc.'s Solaris x86 operating system, the two companies said last week. WebLogic Platform is Java server software for developing and integrating business applications. The porting is expected to be completed by mid-2004.

Wild River Joins Linux Project

Wind River Systems Inc. in Alameda, Calif., has joined the Carrier Grade Linux project being put together by Open Source Development Labs Inc. to develop Linux for use in networking and telecommunications equipment and applications. Wind River has also joined the Eclipse Consortium, a Raleigh, N.C.-based opensource tools group.

PAUL A. STRASSMANN

New Weapons of Information Warfare

HE OCTOBER ISSUE of Communications of the ACM featured papers about future robots capable of performing self-organizing tasks. The authors showed how acceleration in the processing power of computers means that machines could soon reach the capabilities of living creatures, at an affordable cost.

The table below, from the Association for Computing Machinery article, shows the "computing" capacity of organisms and illustrates when commercial computers had or are expected to have equivalent processing power.

Instead of thinking about the rising potential for robotic machines, it occurred to me that software with the intelligence of a mouse or a monkey would have the frightening capacity to launch a new form of network-based warfare.

So far, our approach to securing information networks has been static. The attackers write clever code that's then dispatched to potentially vulnerable apparatus on the Internet. The hostile code is designed to exploit the known weaknesses of millions of computers as well as those of other programmable devices connected to the global Web. The extent of the damage depends on the speed with which the corruption propagates and on the speed with which defenders can deploy countermeasures.

The Security Intelligence Products and Systems organization estimates the worldwide cost of damage from digital attacks from Jan. 1 to mid-November of



this year to be between \$170 billion and \$203 billion — up from \$110 billion to \$130 billion for all of 2002. And that estimate doesn't include costs for installing increasingly burdensome defensive measures.

To place this figure into perspective, one must consider that the estimated total cost of information security failures is about 10% of the total global cost of business computing. In a year when the increases in budgets for

business computing remain in the 1%-to-2% range, the net effect of the losses from attacks is a cut in available spending to support money-making business applications. From that point of view, the costs of software attacks can be seen as inflicting economic damage comparable to that of a major terrorist incident.

The question then arises of whether the current approaches to instituting defensive measures — as promised by software vendors, consultants and your own security personnel — will be sufficient to overcome steadily escalating security threats. This is a classic problem in waging defensive warfare, where the forces of attackers must be neutralized by the capabilities of the defenders. In force vs.

counterforce war games, attackers can be defeated if the learning cycle of the defenders is faster and their resources are adequate to disable the aggressors.

Unfortunately, the outlook for information security from the standpoint of information warfare isn't encouraging. Current methods of blocking intruders aren't likely to be adequate to secure Internet commerce. When swarms of adaptively learning software attackers are launched, they will have the capacity to sense and learn the capabilities of the defenders and to modify their attack plans accordingly. The balance of power will shift in favor of the attackers. The cost of launching attacks will decrease and the expense for defenses will escalate until it becomes prohibitive for companies to pursue the current policy of adhering to static defensive measures.

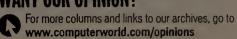
The present methods for security assurance are as obsolete as Cold War military tactics. Regardless of how many firewalls you put up, a software "robot" with monkey-like intelligence will find ways to punch through and then inform other roaming attackers where to penetrate. Regardless of how frequently you patch your software or how often you download virus updates, self-aware mutant code will bypass defenses that were programmed for old patterns of attack.

In the new era of information warfare, network defenders must use new tactics. They will have to launch active countermeasures to disable the learning capabilities of the aggressors. Networks will have to be designed for initiating searchand-destroy software that will find attackers faster than the malevolent software can locate new vulnerabilities. International cooperation will be essential in identifying and neutralizing the sources of disruption. Punitive liability will have to be applied in cases where negligence fosters the proliferation of insecurity. Most important, the influence of CIOs will have to rise, because security has now become the primary impediment to further progress of a global information society. • 43010

Processing Power Accelerates

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-	NUMBER OF NEURONS	EQUIVALENT MIPS	COMPUTER PROCESSING AVAILABLE	MIPS/\$1,000	COMPUTING COSTS
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Worm	7.6.1	1	1890	1	\$1,000
Guppy	100,000	100	1996	1,000	\$100
Lizard	2,000,000	0.00	2000	10,000	\$1,000
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MANAGEMENT

Thinking Like a Manager

Q&A: Harvard Business Review author Jonathan Gosling tells why good managers are crucial to a company's success and identifies five mind-sets that can help you think like a manager. **Page 46**





CIO on Board

Being asked to join a board of directors can mean you've "finally arrived." But it also carries risks and liabilities. Here are 10 things a CIO should know before taking a seat. Page 48

Transform the Year-end Planning Ritual

Opinion: Columnist Paul Glen provides a new way of carrying out the dreaded annual planning exercise that focuses on organizational teamwork so you get better results. **Page 52**

Software contracts are full of hot spots. Here are some tips for not getting burned. By Kathleen Melymuka

OME VENDORS ARE LIKE DISNEY VILLAINS," says Brad
Peterson. "They're manifestly evil, and you have to
watch them." The villains among vendors don't make
their big money on initial software licenses, he says,
but once you start building your company around the
software, they go into "harvest mode," charging substantial fees if you want to continue using that software
after mergers, acquisitions or outsourcings, or even if
you need to let consultants or contractors use it at your site.

"If no one has taken a look at a little clause like 'right to transfer software,' that's where their profit is," says Peterson, co-author of *The Smart Way to Buy Information Technology* (Amacom, 1998) and a partner in the outsourcing practice of Mayer, Brown, Rowe & Maw LLP in Chicago. "You really have no choice but to go back to them and ask them how much money they want."

Your only real protection is to understand those "little" clauses before you sign the contract. Here are nine of the more dangerous ones:

What to watch out for:
Who is entitled to use
the software, and where
are they entitled to use it? Is the
scope clause narrowly crafted
to current use?

It's very common to want to add users over time, and that includes consultants or contractors, says Paul Roy, also a partner at Mayer, Brown. But even if it's an indirect use — like an outsourced payroll clerk who needs access to your project management software to see employee work records — you need consent from the vendor. "It's enormously costly and time-consuming, and the vendor can hold you up for ransom," Roy says.

Whether it's named users, geographical limits, the number of Continued, page 44



Continued from page 43
users or particular machines, "every clause that narrows the scope is an opportunity for the vendor to collect more money when your world changes," he says. Keep definitions broad enough to include users you might add later, and be sure you can do so at the original per-user rate.

STATEMENT OF WORK What to watch out for: Is it vague or incomplete?

Never sign a contract without a very detailed statement of work, says Lawrence A. Thomas, a partner who specializes in technology law at Thomas & Opp PA in Minneapolis. You may be tempted to include some 30,000-foot view of the project because the statement of work isn't completed, everybody is eager to move the work forward, and you trust the vendor, he says. But the vendor can later claim that the project has gone beyond its original description and will have to be completed at additional cost. Without a detailed statement of work in the contract, "you're stuck," says Thomas. "You just keep paying and paying."

OWNERSHIP
What to watch out for:
Who has the rights to
custom software you codevelop with a vendor?

Unless you've spelled it out otherwise in the contract, the vendor has the right to license to others whatever software you develop together, including any best practices or proprietary processes you've built in, Roy says.

Development agreements should spell out ownership of whatever improvements or input you provide. You should withhold from the commercial product any proprietary processes that give you a competitive edge, Thomas says, but the vendor should be free to license other enhancements. For enhancements that fall in the middle, compromise by holding them back from the market for a year to allow you to get a jump on your industry.

CONFIDENTIALITY
What to watch out for:
Do your employees understand the confidentiality
clauses in the software they use? Do you?

If not, your company may be held responsible for the actions of employees who no longer work there, says Diana

J.P. McKenzie, a partner at Gordon & Glickson LLC, a technology law firm in Chicago.

For example, your company signs a contract with Software Vendor A that stipulates that your company won't compete with the vendor. Jane, your chief architect, later leaves to form a software company that competes directly with Vendor A. "Vendor A isn't going to sue Jane unless she's a riproaring success on Day 1," McKenzie says. "It's going to sue the company with the deep pockets, which is you."

You're responsible for explaining the rules to Jane and having her sign a noncompete agreement, McKenzie says. "But in a world where we're all trying to cut expenses, some of that detail can get cut out of your process. And that's a really bad idea."

WARRANTY
What to watch out for:
Is the vendor promising to
meet your business needs or
just provide software?

You may think you've bought the solution to your business problems, when you've really bought only the right to use the software, which may or may not meet your needs, Peterson explains. Regardless of what the salesperson promised, he says, "the contract is the final statement of all obligations of the parties."

Resist pressure to do the deal quickly, he says. List your specific needs and what the software has to do to meet those needs. Then get the vendor to commit in the contract that the software meets those needs. "Think it through, write it down, and determine whether you've got a commitment," he says.

IMPLEMENTATION DELAY
What to watch out for:
If you allow a vendor to postpone an implementation deadline, can the vendor delay completion of the implementation indefinitely?

"You have to be careful when you push back the timing that you don't wind up giving the vendor an unfettered right to never complete," McKenzie says. When you let a deadline slide, there's a tendency to just say the new deadline is whatever the parties agree on, she says. But if the vendor has other, newer priorities, it may never agree.

If you decide to change any dates, be very careful and put the new deadline in writing, she says. "And make it clear it's a one-time-only deal."

LIMITATIONAL LIABILITY
What to watch out for:
If everything goes wrong, can the vendor pay a relatively small fee and leave you holding the bag?

In virtually every contract, McKenzie says, there's a limitational liability clause that lays out the maximum a vendor would have to pay if it did everything wrong. But in this economy, some vendors are using such clauses to get out of bad deals. "If the vendor is losing money on the deal, we sometimes see them just hand you the limitational liability and walk," she says. "We're seeing those more than ever before."

Negotiate a limitational liability clause that's very large or even unlimited, she says. Then the vendor has to make the engagement work or finance your transition to another vendor.

UPGRADES
What to watch out for:
Do you have to pay for
major software upgrades?

Upgrades are normally included in the maintenance costs of a contract, but vendors like to add a clause stating that when they believe an upgrade is major, you have to pay for it, Peterson says. If you allow such a clause, you've got no leverage, he says. "You can't decide to stay on the old version, because after a while it's not supported, and switching systems is very painful."

Negotiate the right to upgrades. "You're protecting your future and making sure you don't have large, unexpected costs," Peterson says.

RESPONSE TIMES What to watch out for:
Is there an objective warranty regarding response times?

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"The biggest reason CIOs get fired is response times are too high," says McKenzie. "You don't want a system where you hit 'Enter' and you can go have a cocktail while you wait for the screen to come back." Make sure you have a warranty for response times that's based on objective standards, typically less than a second for critical functions, she says. • 42789

Melymuka is a Computerworld contributing writer. You can contact her at kmelymuka@yahoo.com.

LEGAL LAND MINES

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Contracting Tips

Here are some general software contracting tips from Phil Bode, director of training at International Computer Negotiations Inc., an IT procurement consulting firm in Winter Park, Fla.

Assume nothing. The vendor, as licensor, has all the rights; you, as licensee, have none except what's in the license agreement.

Use your own license agreement. Vendor contracts are designed to protect vendors. Your contract should protect you. Nearly all major software vendors are open to using yours.

Lay out your expectations – such as the use of your company's contract – early in the process so there will be no surprises or battles of will at the end.

Use your leverage while you've got it. Demand the rights you need and will need in the future before you sign the contract. If you try to expand your rights down the road, you'll have no leverage.

Choose your battles. Vendors respect customers who fight for their rights, but they lose respect for those who waste time making mountains out of molehills.

Weasel Words

In any contract or license, watch out for "weasel words" that seem to imply something that isn't really guaranteed, says Diana J.P. McKenzie, a partner at Gordon & Glickson. If a vendor contract says, "Our goal is..." or "We estimate..." don't confuse that as a commitment, she says. "It's not."

If a contract says, "Our goal is to return calls within the hour," the only thing that means legally is that the vendor thought it would be able to do that, not that it actually can, she explains.

"Folks get fooled into the language of 'goals,' 'estimates,' 'hopes' and 'plans,' " she says, "but those are not a guarantee. You need something that says, 'We will return calls within the hour.' That has an entirely different legal meaning."

- Kathleen Melymuka



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Thinking Like A Manager

Today's obsession with 'leadership' has taken the focus off the critical importance of good management.



Everyone wants to be a great leader, but nobody aspires to be a good manager anymore, says

Jonathan Gosling and co-author

Henry Mintzberg in November's Harvard Business Review. But leadership without the foundation of good

management can be destructive, says Gosling, director of the Centre for Leadership Studies at the University of Exeter in England. He talked with Kathleen Melymuka about what it means to think like a manager.

Why is thinking like a manager so important? IT managers will appreciate that a lot of work goes into maintaining an IT network that nobody knows about till there's a big systems change. But maintaining the continuity of activity is seen as second-rate, where blitzing with change is heroic. It's kind of a miracle, really, that people come to work and do so much productive stuff together. And it has to do not only with being led; it's about careful attention to keeping an organization together.

You offer five "mind-sets" to get managers on the right road. What do you mean by a mind-set? Habitual turns of mind. Some people, for example, tend to be habitually reflective. Whatever's going on, they will ponder, and you see that they're making connections in their internal world. Others are much more action-oriented. They just want to get on and do it. We think it's very important that people find different mind-sets in themselves. We're trying to help the reflective person to find in herself the pleasure of action and

practice it and get at home with it.

The first mind-set is reflective. How would a reflective mind-set help an IT manager do his job better? In relation to working with salespeople, for example. The salespeople just keep banging their fists, and you, as an IT manager, keep saying, "Let's be realistic about it. This will take time." The reflective mind-set will think, "How am I responding? How do I appear to them? I wonder how I can communicate more effectively with them so they can see things from my position?"

Or during a change process, it's often helpful to think, "Have I been through this before in some other situation? What can I learn from history?" It also has to do with the process of setting strategy and vision, and increasingly IT managers are involved in strategy. Here it asks, "What does this company really stand for? What should we be doing? What values are important to us? What are our capabilities? What would we have to do to get there?"

Next is the analytical mind-set, but you want managers to get beyond traditional analysis. Can you explain why and how? Analysis is a hugely powerful process for taking a complex situation and breaking down the constituent parts. But taken to extremes it becomes a pleasure all its own. You can analyze every bit of work and put a cost to it and forget that the whole point is to serve customers.

Analysis is like the left hand in a piano piece: You also need to be collaborating with the overall business mission. And some problems are about making choices between paths of action with uncertain outcomes. The kind of analysis there is rather different. For example, should we relocate IT services to Bangalore? It's relatively straightforward to look at cost but much more complex to evaluate long-term strategic implications like company identity and employment issues.

You want managers to have a worldly mind-set rather than a global one. What's the difference? Broadly speaking, we're interpreting "global" as seeing the globe as a unity converging toward more and more common ways of doing things, looking at different parts of the world as extensions of a single marketplace and seeing each exchange relationships as part of that global marketplace. If you're actually put in charge of a joint-venture operation in Korea, however, you will find the world looks quite different from there. The market looks different; people behave differently; the reason they're in the joint venture may be different from your reason. You see that the world is made up of a host of different interest groups and value systems.

A manager has to give people a sense that they belong to the community they know but [that] what they belong to is meaningfully connected to this bigger system of things. That's worldliness.

In the collaborative mind-set, you say you move from managing people to managing relationships. What's the difference, and why is it important? If you talk about managing people, it's as if the manager sits outside the set of relationships and as if people were not willful characters of their own. It's a very depersonalizing experience to be managed in this way. It's much more rewarding to say,

"How do we together make this place work?" Really what they're doing is trying to finesse the ways in which people relate so that out of that relationship comes productive work.

You say that the action mind-set can benefit from a little humility. What do you mean? Often there's the notion that I, as the boss, made this place change. But as another member of the staff, I imagine you made quite a lot of changes yourself. So let's be clear about exactly what it is that allows productive change to happen. It almost always requires a combination of all the mind-sets we've discussed, but it's not all about the great chess player sitting on high moving pieces around.

This is a lot to juggle. How do I put it all together? When you think about your own job, you probably already exercise all those mind-sets in part. If you really like that little bit of time in the morning in the car reflecting and getting ready for the day, then maybe if you take a five-minute walk in the middle of the day, that might help too. What about analysis? Maybe your IT department works fine together but not so when it comes to working with outsourcers and vendors. How can we improve those relationships? And it goes on from there. • 42312

Melymuka is a Computerworld contributing writer. She can be contacted at kmelymuka@yahoo.com.

This is the latest in a series of monthly discussions with Harvard Business Review authors on topics of interest to IT managers.

Two Takes on Management

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Rewards leaders based on performance; what matters is what can be measured.	Rewards everyone who improves the organization; human values matter.
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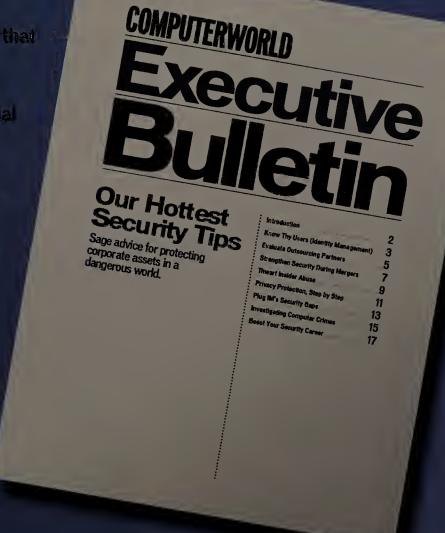
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OR MANY CIOs, being asked to serve on an outside board of directors is evidence that they've finally arrived. And why not? Board membership is public recognition that a CIO has experience that another company craves. It's also an opportunity to network with the bigwigs that populate most boards. Then there's the extra compensation, which can run into five figures, even without stock options.

However, CIOs dreaming about board membership must realize that being asked to serve on a board isn't like winning an award. Ever since Congress passed the Sarbanes-Oxley Act reforming corporate governance, boards have gained more responsibility, which means that board members have more work to do. There's also the risk of lawsuits, especially now that shareholders are so quick to sue when a public company goes south.

To better understand the pros and cons of board membership, *Computerworld* asked five board-serving CIOs (and some corporate governance experts) what a CIO really needs to know before joining a board.

YOU'RE A VALUABLE ASSET TO THE BOARD.

There's no question that a CIO can add value, according to Marty Chuck, CIO at Agilent Technologies Inc. in Palo Alto, Calif., who serves on the board of ServGate Technologies Inc. in Milpitas,

Calif. "CIOs regularly counsel their own executives regarding choices they can make to optimize their business with IT," so it's not a stretch for CIOs to advise other companies' CEOs, Chuck explains. "This experience puts CIOs in a unique position to guide and counsel emerging as well as established companies."

Faisal Hoque, chairman and CEO of Enamics Inc., a Stamford, Conn.-based IT management software and services firm that has always had a CIO on its board, agrees that this is true, especially when the board is for a high-tech firm. "A CIO helps the IT vendor stay on target with its customers," says Hoque. "It's a way to make certain that your sales efforts will work in the real world."

YOU MAY NOT BE THEIR FIRST CHOICE.

Boards are getting smaller and more selective, which makes it less likely for CIOs to be recruited, according to Phil Schneidermeyer, the CIO practice leader at Highland Partners, an executive search firm in Stamford, Conn. "Most firms are looking for top executives with extensive operational and financial experience," he explains. Unfortunately, CIOs aren't always seen as having a wide business perspective. "CIOs tend to rise through the technical ranks and thus lack the high-level exposure of a CEO or CFO," says Richard White, CIO at Ross Stores Inc. in Newark, Calif., who serves on the board of PerformanceRetail Inc. in Austin. White was previously a management consultant.

Continued on page 50

Joining a board of directors looks good, but today it carries new liabilities, too. BY GEOFFREY JAMES

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YOU'LL NEED TO BE HIGHLY VISIBLE BEFORE YOU'RE ASKED.

Boards are looking for CIO candidates who have consistently delivered innovative results and value through technology for their companies. In order to be considered for a board, you'll need to increase your visibility to outside companies by actively networking with key industry influencers and board-level decision-makers. Receiving prominent industry awards and maintaining a strong relationship with your own company's top leaders will also foster your professional reputation, says Carl Wilson, CIO at Marriott International Inc. in Bethesda, Md., who serves on the board of Enamics. "When interviewing for a seat at the board table, a CIO candidate should directly highlight how his unique skills would add value in guiding the outside company and enhance its board's composition," he says.

THE BOARD MAY BE A DISASTER WAITING TO HAPPEN. CIOs asked to serve on the board of a pub-I licly held company must be acutely aware of any potential regulatory problems that the firm might face in the future, according to Maryanne Peabody, vice president at Boston-based Stybel Peabody Lincolnshire Associates, a consulting firm that works on corporate governance issues. She says board candidates should never be satisfied with the information a company provides during the recruitment process. Instead, they should dig through financial reports and even check the employment history of the chief executives. "A company that's restated its revenues is a big red flag," she says. "Another danger signal is a board that's domi-

While most boards have special liability insurance that covers stockholder lawsuits, the coverage may be inadequate. For example, a policy written 15 years ago might only cover each director for a quarter of a million dollars — an absurdly small sum in today's litigious environment. Worse, some policies stipulate that the board members don't get reimbursed for legal fees until after a case is settled, according to Ralph Ward, publisher of "Boardroom Insider," an online corporate gover-

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"Being on a board isn't what it used to be," bemoans Jack Cooper, former CIO at Bristol-Myers Squibb Co., who sits on the board of Lourdes Health Care Center Inc. in Wilton, Conn., and Concord Communications Inc. in Marlboro, Mass. "There's a lot more risk, especially if the firm is public."

YOU MIGHT NOT GET ALL THE INFORMATION YOU NEED.

While boards are required to understand what's going on inside a company, they aren't always able to get the quality information they need to make good decisions. "You're very much at arm's length," says White. "Unlike in your own firm, you don't have the ability to see what's happening day to day." CIOs should also be aware that some companies have a history of keeping their boards in the

How to Get On a Board Of Directors

Ask for your CEO's permission and assistance. You want to be certain that your management is comfortable with the idea.

Attend your own company's board meetings. This is an opportunity to learn more about how beards of directors operate.

Obtain management expertise outside of IT. If you can show that you know more than bits and bytes, you can separate yourself from the techies.

Become visible outside your company and industry. Serving on advisory boards and speaking at industry conferences signals that you're no corporate drone.

Shoot for a board membership at a small IT vendor. Those companies are the ones that need your expertise the most.

- Geoffrey James

dark, according to attorney Thomas M. Parry, a partner at Marzouk & Parry, a Washington law firm that specializes in high-tech litigation. Parry recommends that board candidates talk to other independent board members to find out what documentation the company provided to resolve past issues. "You should never get into the position where you're a rubber stamp for management," he warns.

YOUR FELLOW BOARD MEMBERS
MIGHT BE COMPUTER-ILLITERATE.
Remember back when executives thought it was degrading to have a PC on their desks?
Boards of directors are the last bastion of this curious form of computer illiteracy, Cooper says.
"There's still a general level of ignorance about tech-

BUSINESS SAVVY



Last month, CIO Doreen A. Wright was appointed to the board of directors at The Yankee Candle Co. in South Deerfield, Mass. – a fresh example of the phenomenon of CIOs

joining boards.

Wright has been CIO at Campbell Soup Co. in Camden, N.J., since June 2001. She previously was CIO at Nabisco Inc. and an executive in the financial services industry.

Yankee Candle's CEO and board chairman, Craig W. Rydin, said Wright was selected because of her "broad-based business experience" in the consumer goods and finance industries, as well as her IT experience.

- Mitch Betts

nology in the top bastions of corporate life," he says. "Board members know, theoretically, that technology is important, but they're fearful of having their ignorance exposed."

The danger is that the board may consider the CIO a "token techie" rather than a real contributor. "I've seen companies hold out a CIO on the board as proof that they believe technology is important, when in fact the company was behind the times," says Schneidermeyer.

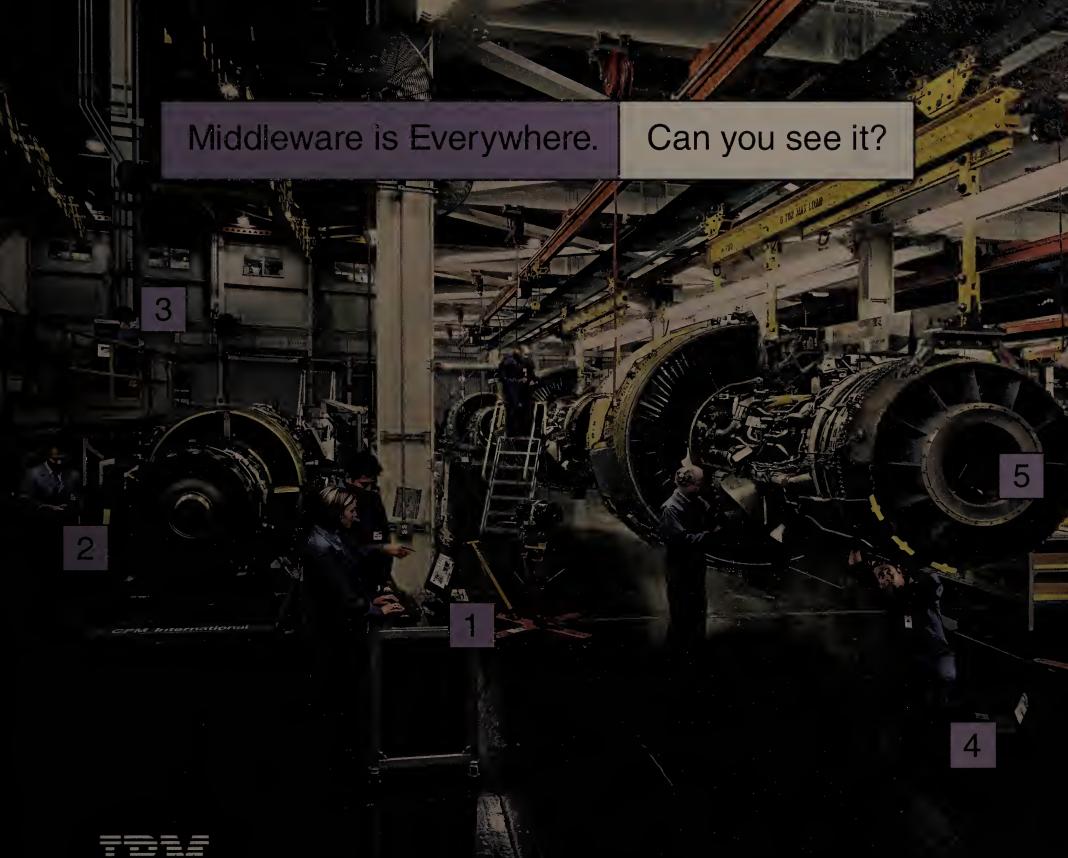
YOU'LL BE ASKED TO DO SOME REAL WORK. Gone are the days when serving on the board meant a half-day meeting each quarter, followed by golf and then drinks by the pool. Given the current climate of regulation and scrutiny, companies now expect their board members to make substantial contributions of time and effort, Cooper says. "Make sure you have an understanding of what the board expects you to do," he advises. Travel can also become a burden, adds Joe Farrelly, CIO at Aventis Pharmaceuticals Inc. in Bridgewater, N.J., who serves on the boards of Aperture Technologies Inc. in Stamford, Conn., and NetNumber Inc. in Lowell, Mass. "From a practical and personal standpoint, always bear in mind that travel and time-zone logistics can become an issue, given the need for recurring face-to-face participation," he warns.

YOUR COMPENSATION IS UNLIKELY TO BE LAVISH. Being on a board used to mean serious money and lucrative stock options. That particular gravy train has just about run out of steam, according to Parry, who points out that regulators now look askance at assigning options to outside board members, because doing so might compromise their independence. That's not to say that there can't be financial rewards for serving. Nonstock compensation can range from \$50,000 to \$75,000 for a major company and considerably less for a smaller firm, Schneidermeyer says. However, Cooper notes that some CIOs may not be able to collect that extra salary because "some companies don't let their CIOs receive compensation from being on outside boards."

YOUR CEO MIGHT NOT BE ENTHUSIASTIC ABOUT THE IDEA.
Ideally, a CIO on an outside board gains experience and perspective that are valuable to the CIO's own company. However, CEOs may not see it that way. Even some CIOs are skeptical. "I'm not convinced that Ross Stores gets much out of my sitting on the board of another company," White acknowledges.

Don't lose heart, though. "Your participation on a board is an opportunity for you to draw on the experience of a wide range of executives," says Farrelly. "And it's a chance to round out your own knowledge of budgetary, HR and other non-IT-specific issues." Board membership can accelerate your career as a top executive, and that may be worth losing a point or two with your current employer. • 42846

James, the author of numerous high-tech books and articles, can be reached at his Web site, www.geoffreyjames.com.





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NEWSMAKER



MARK QUINLAN
went to work in October as CIO at
Cleveland-based
Charter One Financial Inc., one of the
25 largest bank
holding companies
in the country, after
spending over two

years at Union Central Insurance and Investments. "I love banking, and the big driver for me taking this job was to get back into the banking industry," he says. Quinlan, 43, will lead Charter One's IT division of about 200 employees. He talked with Jean Consilvio about the banking industry.

Charter One changed from a thrift to a bank last year. What IT challenges are you still dealing with from that changeover? The biggest change is a new set of regulators. It used to be the Office of Thrift Supervision, and now it's the Office of the Controller of the Currency. They have different outlooks on things, tougher expectations, and technology is part of that.

Are they on-site examining operations all the time? For a bank our size [\$44 billion in total assets], they're pretty much here all the time. They're not looking at the technology area all the time.

Do you think that's a good thing?

Sure, for the most part. You have to make sure that people are doing the right things for their customers, their shareholders. But at the same time, there's a lot of bad people out in the world, unfortunately, trying to break in, or once they're inside, they try to do something. And confidence in the banking industry by the public is certainly very crucial.

What IT projects are on tap? Lots of stuff; that's what I'm trying to sort out. We're expanding a lot; we've added 100 new branches this year, and we'll continue that growth next year.

Is this a challenging time for banks?

Definitely – and for technology.

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PAUL GLEN

Transform the Year-end Planning Ritual

NCE AGAIN, 'tis the season for annual planning, an exercise that fills managers with hope, dread, despair and anticipation. It's a time when we contemplate the future of our organizations, technology

and personal fortunes.

For most companies, the planning process takes place in a management meeting that can last as little as a few hours or as long as a week. But most of the agendas for these meetings are basically the same. They include:

- What did we do this year?
- What do we want to do next year?
- And, occasionally, Who's going to be responsible for making next year's stuff happen?

Of course, hidden in these deceptively simple

questions are myriad subtle and difficult questions about technology, alignment, strategy, priorities and budgeting. By adding just a few more questions, you're more likely to garner the benefits of all this planning. It's equally important to address the following:

- How did we work together this year?
- How do we want to work together next year?
- How can we make the transition from how we were to how we'd like to be?

These are important subjects, because most of what we'd like to do fails to happen because of how we work together, not because we've selected the wrong things to do. The dynamics of group functioning are most often at the heart of project and organizational failures, not poor planning.



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Here are four factors that will help you figure out whether your organizational dynamics support or detract from achieving your goals.

Motivation. Perhaps the most important determinant of success is the motivation level of your organization. Listless and disengaged teams never achieve great things. No matter how well you plan what these teams will do, they're unlikely to complete much. But truly motivated groups can overcome deficits in virtually every other area to achieve their goals.

Here are a few questions to ask about the motivation of your organization: How motivated are your managers and project teams? How important is it to them that their projects succeed? Do they care whether their work supports a business purpose? How engaged are they with their work and their co-workers?

Structure. How your people are organized to work together also has a strong effect on group dynamics. More than just identifying the chain of command, the structure of the group communicates a lot about the values of the organization and delineates each individual's role in its collective success.

So consider these questions: Does everyone understand the overall structure? Is it easy for individuals to understand their own roles? Does everyone understand their individual goals and how achieving them will contribute to collective success?

Leadership. Leadership is particularly important because it has the ability to transform all the other facets of group dynamics. Good leadership offers the possibility of positive change rather than stagnation or chaos.

Although a very complex subject, there are a few questions to ask about the quality of your leadership team. How strong are our relationships with our clients and peer organizations? How do the staffers feel about their managers and one another? Do we have coherent and generally accepted processes and goals?

Teamwork. Ultimately, work gets done by groups of people, usually arranged into project teams. How well the members of these teams work together, in many respects, dictates what they accomplish and their ability to carry on after completing a project.

While teams in your organization probably have different strengths and weaknesses, there are often patterns of attitudes and behaviors across teams that are dictated by the organizational culture. For example, do your people tend to trust one another? Do they engage in constructive conflict, destructive conflict, or do they just avoid it altogether? Do they really care about the results of their work, or are they focused on other things?

Planning represents a significant investment of mental and emotional energy for every organization. If you'd like to improve the return on that investment, I'd advise planning for both what your group will do and how you would like them to do it. With a little extra thought, you can transform sterile annual planning into genuine organizational renewal. § 42788

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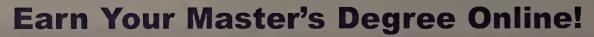
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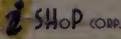


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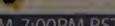
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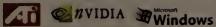
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COMPANIES IN THIS ISSUE

Page number refers to page on which story begins. Company names can also be searched at **www.computerworld.com**.

searched at www.computerwork	1.CO
ABIRESEARCH	.34
ACCENTURE LTD	6
AEA.	1
AGILENT TECHNOLOGIES INC	. 48
AHEAD SOFTWARE INC	. 23
AIRBUS SAS	7
ALIEN TECHNOLOGY CORP	7
ALLSTATE INSURANCE CO	. 14
AMBIENT DEVICES INC	. 23
AMR RESEARCH INC.	
ANACONOA SPORTS INC	. 10
APERTURE TECHNOLOGIES INC	. 48
APPLE COMPUTER INC	. 23
ARIBA INC.	7
ASSOCIATION FOR COMPUTING	
MACHINERY INC	
ASTUTE NETWORKS INC	8
AT&T WIRELESS SERVICES INC	8
AUVI TECHNOLOGIES	
AVENTIS PHARMACEUTICALS INC	. 48
BEA SYSTEMS INC	41
6RISTOL-MYERS SQUIBB CO	48
BUSINESS SOFTWARE ALLIANCE	
CAMPBELL SOUP CO	. 50
CAP GEMINI ERNST &	
YOUNG U.S. LLC	. 14
CASID INC.	23
*:AVIUM NETWORKS INC	8
CELLULAR FELECOMMUNICATIONS	
SINTERNET ASSOCIATION	
CC. CKORS INC	1

ogino. Company minos oun also ba	
CHARTER CNE FINANCIAL INC	52
CHECK POINT SOFTWARE	
TECHNOLOGIES LTD	36
CHINAOOTCOM CORP	12
CISCO SYSTEMS INC,	.41
COLUMBIA UNIVERSITY	. 3
CONCORO COMMUNICATIONS INC	48
COREL CORP ,	12
CORNERPOST SOFTWARE LLC	.8
CYBER INCIDENT DETECTION &	
DATA ANALYSIS CENTER	1
O.L. HART & ASSOCIATES	1
DAIMLERCHRYSLER AG	20
DAVIS INSTRUMENTS CORP	23
DELL INC 6,7,16,	23
OELOITTE CONSULTING	. 8
ONM TECHNOLOGY LTO	.7
OOCUMENTUM INC	16
DUCTI CO	23
EASTMAN CHEMICAL CO	14
EBAY INC	.21
ECLIPSE CONSORTIUM	41
ELECTRONIC OATA SYSTEMS CORP	8
EMC CORP	,16
ENAMICS INC	48
ENSEMBLE COMMUNICATIONS INC	34
EPCGLOBAL INC	. 7
EUROPEAN COMPUTER	
MANUFACTURERS ASSOCIATION 1	.61
FBI	1
FEDERAL RESERVE	. 21

INTERNATIONAL
FORRESTER RESEARCH INC
FREEMARKETS INC,
FRICTIONLESS COMMERCE INC7
FROST & SULLIVAN
GARTNER INC
GENERAL CASUALTY INSURANCE
COMPANY OF WISCONSIN
GORDON & GLICKSON LLC 43,44
HANOSPRING INC
HANDYSOFT GLOBAL CORP14
HAWAIIAN ELECTRIC CO1
HERMAN MILLER INC23
HEWLETT-PACKARO CO 6,8,23
HIGHLAND PARTNERS48
HUOSON UNITED BANCORP14
HUOSON UNITED BANK14
IBM1,10,20,23
IBM GLOBAL SERVICES
INDIANA OEPARTMENT OF
INDIANA OEPARTMENT OF
INDIANA OSPARTMENT OF WORKFORCE DEVELOPMENT
INDIANA OEPARTMENT OF WORKFORCE DEVELOPMENT
INDIANA OEPARTMENT OF
INDIANA OEPARTMENT OF WORKFORCE OEVELOPMENT

FINANCIAL EXECUTIVES

LEGATO SOFTWARE INC. ,
LIEBERMANN INC
LIFE TIME FITNESS INC
LOGITECHING20,23
LOURDES HEALTH CARE
CENTER INC48
LUCENT TECHNOLOGIES (MC. , 23
MARRIOTT INTERNATIONAL INC 48
MARZOUK & PARRY48
MA/ER, BROWN, ROWE & MAW LLP 43
MERCHANY 911
MERCHANT RISK COUNCIL10
META GROUP INC,
MICROSOFT CORP 1,8.8,10.20,23.61
MIRAPOINTING
MONSTER INC
MOVARIS INC
NABISCO INC50
C1 AZAM
NATIONAL GRANGE
MUTUAL INSURANCE CO
NETNUMBER INC48
NETWORK APPLIANCE INC
NOKIA CORP34
NOVA SCOTIA BUSINESS INC
NOVELL INC1,12,20,81
NVIOIA CORP41
OATSYSTEMS INC
OLD MUTUAL PLC
OPEN SOURCE DEVELOPMENT
LABS INC
ORACLE CORP
ORTHOGONAL FREQUENCY
OIVISION MULTIPLEXING FORUM34
OTTER PRODUCTS LLC23
OUTCODAY TECHNIOLOGIEC NIC 040

LAPWORKS INC.....

The state of the s
PERFORMANCERETAIL INC48
PIVOTAL CORP12
POETIC TECHNOLOGIES23
POGO PRODUCTS INC23
PUBLIC BROADCASTING SERVICE1
RAIN DESIGN INC
RED HAT INC
REGIS CORP14
REINSURANCE GROUP OF
AMERICA INC14
RIS RESOURCE INFORMATION
SYSTEMS INC
ROAOWIRED23
ROSS STORES INC
SANS INSTITUTE
SAP AG8,10
SEEB EYONO TECHNOLOGY CORP10
SERVIGATE TECHNOLOGIES INC 48
SIEBEL SYSTEMS INC8
SILVERBACK TECHNOLOGIES INC8
SONY ELECTRONICS
E-SCLUTION CO
SPRINT CORP8
STYBEL PEABODY LINCOLNSHIRE
ASSOCIATES48
SUN MICROSYSTEMS INC15,41
SUSE LINUX AG12,20
TALISMA CORP12
TATA AMERICA
INTERNATIONAL CORP
TATA CONSULTANCY SERVICES 6
TECHNET
TEKTRONIX INC
TERRADON COMMUNICATIONS

GROUP LLC.....

THE ALLSTATE CORP
THE SCO GROUP INC 1,8
THE WORLD BANK 1
THE YANKEE CANDUE CO50
THOMAS & OPP FA
TOSHIBA CORP41
U.S. ARMY7
U.S. CHAMBER OF COMMERCE 1
U.S. DEPARTMENT OF DEFENSE 7
U.S. OEPARTMENT OF
HOMELANO SECURITY1
UNION CENTRAL INSURANCE
AND INVESTMENTS
UNISYS CORP 6
UNIVERSITY OF EXETER46
VERBATIM CORP23
VERISIGN INC
VICTORINOX
VIOEO WITHOUT BOUNDARIES INC 8
VISANT STRATEGIES INC 34
WAL-MART STORES INC
WASHINGTON ALLIANCE OF
TECHNOLOGY WORKERS
WEB SERVICES INTEROPERABILITY
ORGANIZATION 10
WI-FLALLIANCE34
WIMAX FORUM34
WIND RIVER SYSTEMS INC 41
WORLDCOM INC 41
XIMIAN INC 1.61

Continued from page 1

Mono Project

compiler and a set of class libraries. Version 1.0 is due in the second quarter of 2004.

"It's definitely on our emerging-technology radar. We're monitoring it," said Sean Wheeler, director of enterprise technology strategy and planning at The Allstate Corp., a Northbrook, Ill.-based insurer with many .Net-based applications that now runs Linux only for research purposes. "Obviously, if you can run it on Linux, there's potentially large cost savings there."

However, corporate developers are following Mono with some trepidation. Several expressed concern about Novell's spotty track record with acquisitions, the developer community's uphill climb in keeping pace with changes to .Net and Microsoft's potential to derail the Mono project.

"Mono is open-source, but Microsoft would step forward and kill it if there was any real threat to their business model," said Ethan Roberts, a development architect at General Casualty Insurance Company of Wisconsin in Sun Prairie. "Microsoft is under siege from the whole idea of Linux, so why wouldn't they try to derail Mono's success?"

Mono Project **Road Map**

0 - Supports .Net 1.0 Due: 02 2004

Microsoft refused repeated requests for comment about its position on Mono, saying only that it has worked with partners to standardize parts of the .Net Framework via the European Computer Manufacturers Association (ECMA) and the International Standards Organization.

No matter what Microsoft's current position is, Miguel de Icaza, chief technology officer for Novell's Ximian division, is well aware that customers have worries in the wake of The SCO Group Inc.'s lawsuit against IBM.

De Icaza said Mono developers have been very careful about integrating code from third parties. For example, he said, Microsoft wanted Mono developers to use Rotor, Microsoft's free shared-source implementation of its Common Language Runtime platform, which includes source code for C# and JScript compilers as well as for the Common Language Infrastructure.

"We have a rule: If you look at Rotor, you cannot contribute to Mono. It's as easy as that," de Icaza said, adding that his group recognized the need to be on solid legal footing with its work. When a large code contribution arrives, a third party reviews the changes to make sure it didn't come from Rotor, he said.

The greater challenge facing Mono will be catching up with the APIs Microsoft plans to add with the next version of Windows, code-named Longhorn, around 2006, said de Icaza. He said the community will need to rally more developers to get involved. Currently, 15 Novell employees and about 150 opensource community members work on Mono, he said.

But some corporate users said they aren't sure they will consider using Mono unless the community can keep up. Walt Smith, chief architect at a large U.S.-based financial institution, said his company will consider the .Net devel-

Mono Guru Speaks About His Project

The man behind Mono, Miguel de Icaza, CTO for Novell's Ximian division, spoke last week with Computerworld about the opensource project that he helped launch to enable .Net applications to run on Linux and Unix. Excerpts from the interview follow:

When was the Mono project originally due? The Mono runtime was intended to be released a year ago or so. But it was only the [virtual machine] and the C# compiler.... Basically, the scope of Mono has been growing.

How much of the .Net Framework will be supported? It's easy to say what we include in Mono and what we do not include. It's going to be the corporate tool machine, so that's essentially the runtime that lets you run applications. But the libraries are what makes it really interesting, so the libraries that we're shipping in this version include all of the XML functionality in .Net; ADO.Net, which is the database connectivity tool kit; [and] ASP.Net, which includes both

opment environment once it matures in three to five years, particularly in the area of Web services security. It will also consider Mono to run the applications on Linux — but only if that technology also matures, he said. "To remain relevant, Mono will need to incorporate these new security features and a vast array of other .Net features as they appear," he said. "That in itself poses a considerable challenge for Novell/Ximian."

Smith and some other corporate IT managers said Novell's purchase of Ximian won't necessarily lend any additional credibility to its work. André Mendes, chief technology integration officer at Public Broadcasting Service in Alexandria, Va., said he's interested in Mono and Novell brings some

support for creating Web services and creating Web applications.

The two big missing pieces are called Windows Forms, which is a technology for building client applications as opposed to Web applications, and we're also making a technology called Enterprise Services, which is used for transaction management.

How would a developer work around the missing client functionality? We have our own set of libraries for doing client functionality. We just don't have one that will transparently move your Windows client apps to Linux. We have something which is Unix-specific today. But by the end of next year, we will have the Windows compatibility.

Do you have any concerns about Microsoft raising intellectual property issues? My main concern with Microsoft is not that one, because .Net is basically a retooling of Java. . . . Microsoft should be concerned about .Net. My main concern really is Longhorn in the 2006 time

frame. They're adding a lot of APIs, and that's going to be hard to catch up with.

What kind of reaction have you gotten from Microsoft about the Mono project? The only people who I have talked to are their engineers or the ECMA [standards] committee . . . and so far, it's been great. They're very receptive. They help a lot with every problem we have in the spec. . . . They're very supportive at the engineering level. We've had a few high-level talks with them, but nothing really concrete.

Can you foresee any potential legal issues? The only potential legal problem is whether there is a patent on [any] API, and we have a couple of options when we're dealing with patents. The first option is [to] look for prior art, because Microsoft might be granted a patent that they don't really deserve.... If we cannot find prior art, then we will have to remove that functionality from the Mono runtime, and for customers, we'll negotiate a license for the patents with Microsoft.

- Carol Sliwa

degree of revenue and cash flow. But he added, "Quite honestly, Novell is one of those companies I could never figure out. They lost the competitive advantage they had in the marketplace."

"I would really like to see Novell become a legitimate player in this space, but it's really up to Novell," said General Casualty's Roberts. "One thing that Novell seems to be good at is killing some solid technology."

De Icaza said there are areas where Novell has been helpful, such as directory services, which Mono wasn't going to have until Novell employees volunteered to add them.

Novell Vice Chairman Chris Stone said through a spokesman that the company fully supports the Mono project

and is even considering providing the Mono environment on NetWare so .Net applications will also be able to run on that operating system.

But some corporate users said they don't think they will be running their .Net applications on operating systems other than Windows. "I doubt many of them will switch because of this," said one developer who works for a government agency.

"In reality, I don't think we'll need it," said Richard Eber, director of development services at Hawaiian Electric Co., which has substantial investments in Microsoft technology. He said that even though his company may add some Unix systems in the future, those will be for running Javabased applications. • 43168



FRANK HAYES • FRANKLY SPEAKING

Gadget Guy

OU KNOW WHO HE IS. (It's almost always a guy.) He's the user who loves gadgets. He's the first one to have every new high-tech toy, from the Apple Newton to a wireless modem to a camera phone. He used to ask you to support his gadgets when he tried to use them for work. And maybe you did, back when you still had the staff and budget to cater to one user's whims.

By now, you've long since stopped that kind of catering. And by now, he's long since stopped asking.

But he's still bringing his toys into work. And that means he may be one of your biggest security problems.

Think about it: Handheld computers enable users to walk out the door with megabytes of proprietary data in their pockets. Home wireless networking equipment can open up holes in your network big enough to drive a truckload of hackers through. A webcam with enough resolution is a virtual window into an office.

And those are just the innocent problems. In the hands of a disgruntled employee, gadgets are just about guaranteed to be dangerous.

You can't do much about those cases. But as for the gadget freak who finally stopped asking you for support, now might be a good time to renew his acquaintance.

After all, the holidays are coming. A new wave of gadgets will hit your office soon.

And your gadget guy won't just be bringing in new toys of his own. He'll also be the go-to guy for other users who get gadgets this year. They already know that your IT department doesn't have the time or resources to help them with home-quality IT gear that's not approved for use in the office.

So when they have questions, he'll have an-

swers. And because he knows IT doesn't want to hear about this stuff, he won't bother asking you for help or guidance.

That's a sure recipe for problems. How do you suppose all those wireless access points popped up on your networks last year? A gadget guy brought them in. He helped out less sophisticated users who liked the idea, too. But he didn't think about encryption or security or any other complications that IT thinks are important.

By the time you figured out they

were there, wireless access points were probably such a scandalous security problem that you just ripped out the receivers and banned their use anywhere, period, no exceptions.

Thus guaranteeing that the gadget freaks would *never* want to ask you for help again.

The same thing has happened, in less visible ways, with handhelds and digital recorders and cameras and all-in-one cell phones. They're all potential security problems. They're all easy to connect to PCs, thanks to USB ports, and they all have clever (though unauthorized) business uses. In fact, to a user who loves gadgets, there's no such thing as a gadget that can't somehow be used at work.

So that gadget guy can either remain a problem for you this year — or become a resource.

Find him. Enlist his help. Explain your situation. Tell him you don't want to say no to all the creative uses that users put gadgets to, but you can barely handle the workload you've got. Promise that you'll do your best to help make those gadgets safe and practical if he'll make sure you're not blindsided by gadgets you didn't

know about.

Yes, it'll mean a little more effort for you, figuring out those gadgets. And with budgets and staffs still squeezed, that's a problem. But if you can get the gadget guy on board, he'll do a lot of the work. And instead of hiding gadgets from you, he'll keep you in the loop — which means a lot less effort looking for gadgets gone wrong.

Because the question isn't whether the gadget guy will be there — it's what kind of problem he'll be.

42894



FRANK HAYES, Computerworld's senior news columnist, has covered IT for more than 20 years. Contact him at

It's Easier That Way

IT director pilot fish orders up a new cell phone for oncell support staffers to use for after-hours emergencies, and he has the voice-mali system configured to page the phone whenever a message is left for the kelp desit. "Three days later, I teamed that the on-call support person was asking to have the voice-mail paging feature reconfigured to match the old system." says fish. "Turns out the old system was configured to page only during normal business hours!"

Patience User has trouble attaching a document to an e-mail mescage

e-mair mescage
— site teops getting two
or firree copies. Show
me, says support pilot
fish. User clicks once to
attach, but the attechment deesn't appear
quickly, so she keeps
clicking. Be patient, floitells her. The process is
working, but you need to
give it time. "No," says
user. "I put my cor right
beside the computer after I try to attach, and
it's completely quict. It is
not working."

That'll Do It

In this factory, coaxial cable connects 200 terminals to the mainframe. When another 100 are added, the old connections start going flaky, and IT pilot fish can't spot why - until he has someone trace the cables. "The hole coming into the computer room through the cement blocks is 8.5 in. in diameter," he says. The hole in the stainless steel finish plate was 8 in. As more cables were strung through the hole, the older ones on the bottom were pushed against the thin sheet metal - shorting some of

Next Time, Trust Me Boss comes to this IT pilet fish with a

floppy disk that's completely unreadable, and fish spots the problem immediately. You have a brand of floppy drive that routinely falls and destroys disks, fish tells her, so don't use it. "Later that day, she presented me with another blown floppy," grumbles fish. "How did it happen? She said, 'Oh, I wented to prove you were right.'"

Well Spent

When support pilot fish gets a request to fix a melfunctioning server. he has trouble finding it. "It was actually one room over frem the server room, sitting on top of a huge, wellmarked transformer," fish says. "When I did get it up and running, it had the most distorted display I've ever seen!" He keeps it going, but no one ever seems to access it, so he does a little checking. "We were still paying \$500 per month for a data feed," says fisht. "But no one was actually using the data from it anymore - and hadn't in at least two

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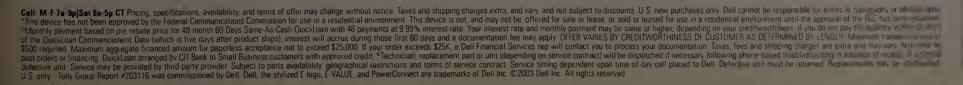
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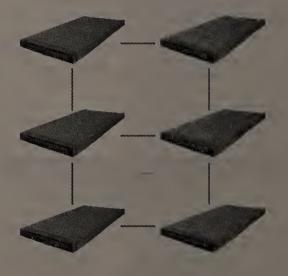


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